

KANSAS 

# State Agricultural College.



Catalogue, 1893-'94.

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**SPECIAL COLLECTIONS**





KANSAS STATE AGRICULTURAL COLLEGE, (General View—1890.)

THIRTY-FIRST ANNUAL CATALOGUE

OF THE

Officers, Students and Graduates

OF THE

KANSAS STATE

Agricultural College.

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1893-'94.

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MANHATTAN, KANSAS,  
1894.

## Terms and Vacations.

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### Fall Term, 1894.

WEDNESDAY, SEPTEMBER 12.—Examination for admission, at 9 A. M.  
THURSDAY, SEPTEMBER 13.—College year begins.  
FRIDAY, OCTOBER 26.—Examination.  
FRIDAY, DECEMBER 7.—Annual exhibition of the Alpha Beta Society.  
THURSDAY AND FRIDAY, DECEMBER 20, 21.—Examination at close of fall term.  
DECEMBER 22 TO JANUARY 7.—Winter vacation.

### Winter Term, 1895.

MONDAY, JANUARY 7.—Examination for admission, at 9 A. M.  
TUESDAY, JANUARY 8.—Winter term begins.  
SATURDAY, FEBRUARY 2.—Annual exhibition of the Hamilton Society.  
FEBRUARY 5 TO 16.—Short lecture course for farmers.  
FRIDAY, FEBRUARY 15.—Examination.  
SATURDAY, MARCH 16.—Annual exhibition of the Webster Society.  
THURSDAY AND FRIDAY, MARCH 28, 29.—Examination, close of winter term.

### Spring Term, 1895.

MONDAY, APRIL 1.—Spring term begins.  
FRIDAY, APRIL 26.—Annual exhibition of the Ionian Society.  
FRIDAY, MAY 3.—Examination.  
MONDAY AND TUESDAY, JUNE 10, 11.—Examination at close of year.  
JUNE 9 TO 12.—Exercises of Commencement week.  
WEDNESDAY, JUNE 12, AT 10 A. M.—Commencement.  
JUNE 13 TO SEPTEMBER 11.—Summer vacation.

### Fall Term, 1895.

WEDNESDAY, SEPTEMBER 11.—Examination for admission, at 9 A. M.  
THURSDAY, SEPTEMBER 12.—College year begins.

## Board of Regents.

---

HON. W. D. STREET (1896)\*, *President*,  
Oberlin, Decatur county.

HON. HARRISON KELLEY (1896), *Vice President*,  
Burlington, Coffey county.

HON. ED. SECREST (1895), *Treasurer*,  
Randolph, Riley county.

HON. E. D. STRATFORD (1895), *Loan Commissioner*,  
El Dorado, Butler county.

HON. C. B. HOFFMAN (1897),  
Enterprise, Dickinson county.

HON. C. E. GOODYEAR (1897),  
Wichita, Sedgwick county.

PRES. GEO. T. FAIRCHILD (*ex officio*), *Secretary*.

---

I. D. GRAHAM, *Assistant Secretary*,  
Manhattan.

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\* Term expires.

## Board of Instruction.

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### FACULTY.

---

GEORGE T. FAIRCHILD, L.L. D. (*Oberlin*), PRESIDENT.  
Professor of Logic and Philosophy.

GEORGE H. FAILYER, M. Sc. (*Kansas Agricultural College*),  
Professor of Chemistry and Mineralogy.

EDWIN A. POPENOE, A. M. (*Washburn*),  
Professor of Horticulture and Entomolgy, Superintendent of Orchards and Gardens.

DAVID ERNEST LANTZ, M. Sc. (*Pennsylvania State Normal*),  
Professor of Mathematics, Librarian.

JOHN D. WALTERS, M. Sc. (*Kansas Agricultural College*),  
Professor of Industrial Art and Designing.

IRA D. GRAHAM, A. M. (*Eureka*),  
Secretary, Instructor in Bookkeeping.

OSCAR EUGENE OLIN,  
Professor of English Language and Literature.

Mrs. NELLIE SAWYER KEDZIE, M. Sc. (*Kansas Agricultural College*),  
Professor of Household Economy and Hygiene.

Mrs. ELIDA E. WINCHIP,  
Superintendent of Sewing.

OZNI P. HOOD, B. Sc. (*Rose Polytechnic*),  
Professor of Mechanics and Engineering, Superintendent of Workshops.

ALEXANDER B. BROWN, (*Graduate of Boston Music School*), A. M. (*Olivet*),  
Professor of Music.

JOHN S. C. THOMPSON,  
Superintendent of Printing.

FRANCIS H. WHITE, A. M. (*Princeton*),  
Professor of History and Political Science.

CHARLES C. GEORGESON, M. Sc. (*Michigan Agricultural College*),  
Professor of Agriculture, Superintendent of Farm.

EDWIN B. BOLTON, Captain 23d U. S. Infantry (*U. S. Military Academy*),\*  
Professor of Military Science and Tactics.



ERNEST R. NICHOLS, B. D. (*Iowa State Normal*), B. S., A. M. (*State University of Iowa*),

Professor of Physics.

NELSON S. MAYO, D. V. S. (*Chicago Veterinary College*), M. S. (*Michigan Agricultural College*),

Professor of Physiology and Veterinary Science.

JULIUS T. WILLARD, M. Sc. (*Kansas Agricultural College*),

Assistant Professor of Chemistry.

ALBERT S. HITCHCOCK, M. Sc. (*Iowa Agricultural College*),

Professor of Botany.

SILAS C. MASON, M. Sc. (*Kansas Agricultural College*),

Assistant Professor of Horticulture.

Miss JOSEPHINE C. HARPER,

Instructor in Mathematics.

Miss ALICE RUPP,

Instructor in English.

HOWARD MURRAY JONES, A. B. (*Oberlin*),

Rhetorical Instructor.

HARRY G. CAVENAUUGH, Captain 13th U. S. Infantry,\*

Professor of Military Science and Tactics.

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#### ASSISTANTS AND FOREMEN.

---

CLAUDE M. BREESE, M. Sc. (*Kansas Agricultural College*),

Assistant in Chemistry.

JULIA R. PEARCE, B. Sc. (*Kansas Agricultural College*),

Assistant Librarian.

BESSIE B. LITTLE, B. Sc. (*Kansas Agricultural College*),

Assistant in Sewing.

FRED. C. SEARS, B. Sc. (*Kansas Agricultural College*),

Foreman of Orchards and Gardens.

WILLIAM BAXTER,

Foreman of Greenhouses.

WILLIAM L. HOUSE,

Foreman of Carpenter Shop.

ENOS HARROLD,

Foreman of Iron Shop.

L. A. McKEEN,

Foreman of Farm.

---

\* Captain Bolton was relieved by Captain Cavenaugh, February 27, 1894.

**STUDENT ASSISTANTS.**

---

ARNOLD EMCH, Industrial Art and Designing.  
MARY E. COTTELL, B. Sc., Arithmetic.  
PHEBE E. HAINES, M. Sc., Arithmetic.  
MARGARETHA E. C. HORN, B. Sc., English.  
RUTH T. STOKES, B. Sc., Household Economy.  
JAMES E. PAINE, B. Sc., Agriculture.  
LORA L. WATERS, M. Sc., English.  
WILLIAM A. CAVENAUUGH, Gymnasium.  
FRANK A. DAWLEY, Mineralogy.  
ERNEST A. DONAVEN, Agriculture.  
LORENA M. HELDER, Music.  
CHARLES R. HUTCHINGS, Woodwork, Surveying.  
ISAAC JONES, JR., Horticulture.  
HENRY W. MOORE, Horticulture.  
JAMES F. ODLE, Surveying.  
JOHN V. PATTEN, Surveying.  
ARCHIE I. ROBERTSON, Printing.  
VICTOR I. SANDT, Zoölogy.  
JOHN A. SCHEEL, Chemistry and Mineralogy.  
JOHN STINGLEY, Horticulture.  
DELBERT L. TIMBERS, Agriculture.  
FRANK E. UHL, Gymnasium.  
EDWIN H. WEBSTER, Blacksmithing.  
JOHN M. WILLIAMS, Surveying.

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**OTHER OFFICERS.**

---

GRACE M. CLARK, B. Sc.,  
Stenographer in Executive Offices.  
  
MARGARETHA E. HORN, B. Sc.,  
Clerk in Executive Offices.  
  
CHARLES A. GUNDAKER,  
Engineer.  
  
ANDREW C. McCREARY,  
Janitor.

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## Experiment Station.

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### Council.

---

PRESIDENT FAIRCHILD, Chairman, *ex officio*.  
PROFESSOR FAILYER, Chemistry.  
PROFESSOR POPENOE, Horticulture and Entomology.  
PROFESSOR GEORGESON, Agriculture.  
PROFESSOR MAYO, Veterinary Science.  
PROFESSOR HITCHCOCK, Botany.

---

I. D. GRAHAM, Secretary.

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### Assistants.

---

J. T. WILLARD, M. Sc., Chemistry.  
S. C. MASON, M. Sc., Horticulture.  
F. A. MARLATT, B. Sc., Entomology.  
F. C. BURTIS, B. Sc., Agriculture.  
D. H. OTIS, B. Sc., Agriculture.  
\* M. A. CARLETON, M. Sc., Botany.  
† J. B. S. NORTON, Botany.  
‡ F. W. DUNN, B. Sc., Irrigation.

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\* Resigned, February 20, 1894.

† Appointed, April 1, 1894.

‡ Appointed, April 15, 1894.

## Students.

### POSTGRADUATES.

#### CANDIDATES FOR ADVANCED DEGREE, 1894.

##### RESIDENT.

- Francis Charles Burtis, '91 ..... *Agriculture, Botany.*  
Manhattan, Riley county.
- Mary Emmeline Cottrell, '91 ..... *Horticulture, Chemistry, Domestic Economy.*  
Wabaunsee, Wabaunsee county.
- Arnold Emch ..... *Physics, Architectural Drawing.*  
Gossliwil, Switzerland.

##### NONRESIDENT.

- Judd Noble Bridgman, '91 ..... *Mechanical Engineering, Physics.*  
Palo Alto, Cal.
- Kary Cadmus Davis, '92 ..... *Botany, Horticulture.*  
Austin, Minn.
- Frank Albert Waugh, '91 ..... *Horticulture, Botany.*  
Stillwater, O. T.

##### IN COURSE.

##### RESIDENT.

- Grace Maria Clark, '92 ..... *Botany, Horticulture.*  
Manhattan, Riley county.
- Phoebe Ellen Haines, '83, M. Sc. .... *Industrial Art, Domestic Economy.*  
Manhattan, Riley county.
- Margaretha E. C. Horn, '93 ..... *Botany.*  
Westerbergen, Germany.
- Bertha Sarah Kimball, '90 ..... *Entomology, Horticulture.*  
Manhattan, Riley county.
- Bessie Belle Little, '91 ..... *Music, Domestic Economy.*  
Manhattan, Riley county.
- Frederick Albert Marlatt, '87 ..... *Entomology, Horticulture.*  
Manhattan, Riley county.
- Daniel Henry Otis, '92 ..... *Agriculture, Botany.*  
Manhattan, Riley county.
- James E. Payne, '87 ..... *Agriculture, Botany.*  
Edgerton, Johnson county.
- Fred. C. Sears, '92 ..... *Horticulture, Botany.*  
Manhattan, Riley county.
- Kate Oldham-Sisson, '92 ..... *Zoölogy, Horticulture.*  
Toronto, Canada.
- Ruth Tipton Stokes, '92 ..... *Domestic Economy, Botany.*  
Garnett, Anderson county.

- Lora Luvernia Waters, '88, M.Sc. . . . . *Botany, Domestic Economy.*  
Junction City, Geary county.
- Fannie Elizabeth Waugh, '91. . . . . *Botany, Domestic Economy, Drawing.*  
Marquette, McPherson county.
- NONRESIDENT.
- Henry Leamer Pellett, '93. . . . . *Physics, Mechanical Drawing.*  
Prairie Centre, Johnson county.
- Ben Skinner, '91. . . . . *Chemistry, Botany, Agriculture.*  
Fairview, Brown county.
- Joseph B. Thoburn, '93. . . . . *Horticulture, Botany.*  
Peabody, Marion county.
- George K. Thompson, '93. . . . . *Physics, Engineering.*  
Irving, Marshall county.
- Ava Hamill Tillotson, '92. . . . . *Zoology, Domestic Economy.*  
Salina, Saline county.
- George Washington Wildin, '92. . . . . *Mathematics, Physics, Engineering.*  
Topeka, Shawnee county.

FOURTH YEAR.

<i>Name.</i>	<i>Post Office and County.</i>
Frank Weber Ames, . . . . .	Riley, Riley.
Clara Francelia Castle, . . . . .	Manhattan, Riley.
George Luther Christensen, . . . . .	Mariadahl, [Riley.]
John Cornelius Christensen, . . . . .	Mariadahl, [Riley.]
Lorena Estella Clemons, . . . . .	Alida, Geary.
Martha Cottrell, . . . . .	Wabaunsee, Wabaunsee.
Sarah Esther Cottrell, . . . . .	Wabaunsee, Wabaunsee.
Alverta May Cress, . . . . .	Manhattan, Riley.
Fannie Jane Cress, . . . . .	Steubenville, Ohio.
Ernest A. Donaven, . . . . .	Agra, Phillips.
Jephthah W. Evans, . . . . .	Manhattan, Riley.
Isabella Russell Frisbie, . . . . .	North Topeka, Shawnee.
Eugene Leonard Frowe, . . . . .	Louisville, Pottawatomie.
Walter Harling, . . . . .	Olsburg, Pottawatomie.
Blanche Etta Hayes, . . . . .	Manhattan, Riley.
Lorena Marguerite Helder, . . . . .	Manhattan, Riley.
Mark V. Hester, . . . . .	Haviland, Kiowa.
Charles Ross Hutchings, . . . . .	Pomona, Franklin.
Isaac Jones, jr., . . . . .	Ada, Lincoln.
Stella Victoria Kimball, . . . . .	Manhattan, Riley.
Robert McIntosh Laundy, . . . . .	Wreford, Geary.
Mary Eliza Lyman, . . . . .	Manhattan, Riley.
William Henry Moore, . . . . .	Manhattan, Riley.
Sarah Moore, . . . . .	Gardner, Johnson.
James Francis Odle, . . . . .	Rossville, Shawnee.
Charles Randolph Pearson, . . . . .	Collyer, Trego.
Horace Greeley Pope, . . . . .	Manhattan, Riley.
Minnie Louisa Romick, . . . . .	Manhattan, Riley.
Winnie Luella Romick, . . . . .	Manhattan, Riley.
John Alfred Scheel, . . . . .	Emporia, Lyon.

<i>Name.</i>	<i>Post Office and County.</i>
Victor Irvin Sandt, . . . . .	Alden, Rice.
Jacob Ulrich Secrest, . . . . .	Randolph, Riley.
Charles Chrisfield Smith, . . . . .	Manhattan, Riley.
Jennie Ruth Smith, . . . . .	Manhattan, Riley.
Wesley Ohio Staver, . . . . .	Glenn, Johnson.
John Stingley, . . . . .	Manhattan, Riley.
John Edwin Taylor, . . . . .	Berryton, Shawnee.
Delbert L. Timbers, . . . . .	Beloit, Mitchell.
Phoebe Carey Turner, . . . . .	Rock Creek, Jefferson.
Samuel Robert Vincent, . . . . .	Argonia, Sumner.
Lucy Helena Waters, . . . . .	Junction City, Geary.
John Melancthon Williams, . . . . .	Edgerton, Johnson.

## THIRD YEAR.

Carl D. Adams, . . . . .	Osawkie, Jefferson.
Deane Collier Arnold, . . . . .	Louisville, Pottawatomie.
Robert John Barnett, . . . . .	Denison, Jackson.
George Gordon Boardman, . . . . .	Centralia, Nemaha.
Con Morrison Buck, . . . . .	Oskaloosa, Jefferson.
Burton Wesley Conrad, . . . . .	Capioma, Nemaha.
Florence Ruth Corbett, . . . . .	Manhattan, Riley.
Elsie Emeline Crump, . . . . .	Manhattan, Riley.
David Thomas Davies, . . . . .	Manhattan, Riley.
Frank Andrew Dawley, . . . . .	Vincent, Osborne.
Daisy Day, . . . . .	Manhattan, Riley.
Flora Day, . . . . .	Manhattan, Riley.
George Adam Dean, . . . . .	Topeka, Shawnee.
George Henry Dial, . . . . .	Cleburne, Riley.
Lillie Christena Dial, . . . . .	Cleburne, Riley.
George Doll, . . . . .	Larned, Pawnee.
Lucy Ellis, . . . . .	Havensville, Pottawatomie.
Victor Emrick, . . . . .	Lone Tree, Missouri.
Robert Kirby Farrar, . . . . .	Artell, Marshall.
Mary Finley, . . . . .	Manhattan, Riley.
George Forsyth, . . . . .	Howard, Elk.
Ernest Harrison Freeman, . . . . .	North Topeka, Shawnee.
Florence Eleanor Fryhofer, . . . . .	Randolph, Riley.
George William Fryhofer, . . . . .	Randolph, Riley.
Oscar Hugo Halstead, . . . . .	Leonardville, Riley.
Hortensia Harman, . . . . .	Valley Falls, Jefferson.
John Bright Harman, . . . . .	Valley Falls, Jefferson.
Mary Eliza Haulenbeck, . . . . .	Manhattan, Riley.
Lawrence Wilbur Hayes, . . . . .	Manhattan, Riley.
Clarence V. Holsinger, . . . . .	Rosedale, Wyandotte.
Christian Andrick Johnson, . . . . .	Success, Russell.
John James Johnson, . . . . .	Success, Russell.
Snsan Effie Johnson, . . . . .	Success, Russell.
Fred. Ralph Jolly, . . . . .	Manhattan, Riley.
Marion Elizabeth Jones, . . . . .	Manhattan, Riley.

<i>Name.</i>	<i>Post Office and County.</i>
William Irvin Joss, . . . . .	Fairview, Brown.
Maud Estella Kennett, . . . . .	Silver Lake, Shawnee.
Myron Arthur Limbocker, . . . . .	Manhattan, Riley.
Charles Dwin McCauley, . . . . .	Wilburn, Ford.
Samuel Alexander McDowell, . . . . .	Manhattan, Riley.
Laura Sarah McKeen, . . . . .	Manhattan, Riley.
John Bitting Smith Norton, . . . . .	Manhattan, Riley.
William Hackworth Painter, . . . . .	Meade, Meade.
Elva Luthera Palmer, . . . . .	Clifton, Clay.
Charles Wesley Pape, . . . . .	Topeka, Shawnee.
Ethel Patten, . . . . .	Silver Lake, Shawnee.
John Vernon Patten, . . . . .	Silver Lake, Shawnee.
William H. Phipps, . . . . .	Chapman, Dickinson.
Katharine Hall Pierce, . . . . .	Winfield, Iowa.
Charles Stephen Pope, . . . . .	Cawker City, Mitchell.
Alice Julia Quintard, . . . . .	Silver Lake, Shawnee.
Frederick Ellsworth Rader, . . . . .	Manhattan, Riley.
Ralph Waldo Rader, . . . . .	Manhattan, Riley.
Ada Rice, . . . . .	Manhattan, Riley.
Isaac Archie Robertson, . . . . .	Manhattan, Riley.
Benjamin Franklin Simeon Royer, . . . . .	Sterling, Rice.
Mabel Gertrude Selby, . . . . .	Manhattan, Riley.
Marietta Smith, . . . . .	Manhattan, Riley.
Frederick John Smith, . . . . .	Iwacura, Clay.
Kitty Myrtle Smith, . . . . .	Manhattan, Riley.
Bertha Anora Steele, . . . . .	Minneapolis, Ottawa.
Sadie Stingley, . . . . .	Manhattan, Riley.
Cora Idella Stump, . . . . .	Manhattan, Riley.
Miriam Esther Swingle, . . . . .	Manhattan, Riley.
William E. Thackrey, . . . . .	Manhattan, Riley.
Dora Thompson, . . . . .	Irving, Marshall.
Elven Creveling Trembly, . . . . .	Council Grove, Morris.
Edwin H. Webster, . . . . .	Yates Center, Woodson.
George Carpenter Wheeler, . . . . .	Burlington, Coffey.
Mary Elizabeth Willard, . . . . .	Wamego, Pottawatomie.
Olive Mabel Wilson, . . . . .	Austin, Illinois.
Ora Gertrude Yenawine, . . . . .	Manhattan, Riley.

SECOND YEAR.

John Andrew Amnell, . . . . .	Randolph, Riley.
Cora Atwell, . . . . .	Manhattan, Riley.
Otto Bentz, . . . . .	Riley, Riley.
Albert Gnstavus Bittman, . . . . .	Louisville, Pottawatomie.
May Haines Bowen, . . . . .	Manhattan, Riley.
Claude Milo Brobst, . . . . .	Osborne, Osborne.
Edwin Ladue Brockway, . . . . .	Macomb, Illinois.
William Edward Bryan, . . . . .	Centralia, Nemaha.
Margaret Isaphene Carleton, . . . . .	Scottsville, Mitchell.
Albert Plummer Carnahan, . . . . .	Centralia, Nemaha.

<i>Name.</i>	<i>Post Office and County.</i>
William Annesley Cavanaugh, . . . . .	Manhattan, Riley.
Clarence Asa Chandler, . . . . .	Argentine, Wyandotte.
Chase Cole, . . . . .	Winchester, Jefferson.
Laura Viola Condray, . . . . .	Manhattan, Riley.
Minnie Laura Copeland, . . . . .	Quenemo, Osage.
Maggie A. Correll, . . . . .	Overbrook, Osage.
Charlotte Mabel Cotton, . . . . .	Wabaunsee, Wabaunsee.
Sid. Henry Creager, . . . . .	Jamestown, Cloud.
Alexis Cramer Cutler, . . . . .	Wabaunsee, Wabaunsee.
George McCutcheon Dick, . . . . .	Ellsworth, Ellsworth.
Charles Francis Doane, . . . . .	Louisville, Pottawatomie.
Frank Burton Dodds, . . . . .	Idana, Clay.
John Berthold Dorman, . . . . .	Manhattan, Riley.
Bradford Dougherty, . . . . .	Kansas City, Wyandotte.
Fred. George Dow, . . . . .	Manhattan, Riley.
Della Drollinger, . . . . .	Garrison, Pottawatomie.
Eugene Emrick, . . . . .	Lone Tree, <i>Missouri</i> .
Charles Silas Evans, . . . . .	Denison, Jackson.
Clyde Farman, . . . . .	Manhattan, Riley.
Edwin Roy Farwell, . . . . .	Osborne, Osborne.
Mabel Nancy Farwell, . . . . .	Osborne, Osborne.
George William Finley, . . . . .	Manhattan, Riley.
Josephine Finley, . . . . .	Manhattan, Riley.
Martha Fox, . . . . .	Manhattan, Riley.
Joanna Freeman, . . . . .	Riley, Riley.
John Jacob Fryhofer, . . . . .	Randolph, Riley.
August E. Fuhlhage, . . . . .	Myra, Woodson.
Harris Rishel Gilbert, . . . . .	Lincolntown, Marion.
Claud Marion Gilleece, . . . . .	Denison, Jackson.
George Clifton Hall, . . . . .	Hoyt, Jackson.
Samuel McCreedy Hanlon, . . . . .	Mayfield, Sumner.
Martha W. Harbord, . . . . .	Bushong, Lyon.
Elizabeth Lynn Hartley, . . . . .	Manhattan, Riley.
Ephraim J. Hartzler, . . . . .	Goodland, Sherman.
Alonzo Charles Havens, . . . . .	Dwight, Morris.
Gertrude Julia Havens, . . . . .	Dwight, Morris.
Lottie Elizabeth Henry, . . . . .	Lincoln, Lincoln.
John Warren Holland, . . . . .	Cokeville, <i>Wyoming</i> .
Mrs. Clara Effie Holroyd, . . . . .	Manhattan, Riley.
Myrtle Hattie Hood, . . . . .	Manhattan, Riley.
Mabel Clair Hooker, . . . . .	Manhattan, Riley.
Charles Henry Hoop, . . . . .	Manhattan, Riley.
Stella May Hougham, . . . . .	Manhattan, Riley.
Winnifred Anna Houghton, . . . . .	Manhattan, Riley.
Bret Redmon Hull, . . . . .	Alta Vista, Wabaunsee.
Lena Bertha Jackson, . . . . .	Garrison, Pottawatomie.
Lula Maud Jackson, . . . . .	Garrison, Pottawatomie.
Henry George Johnson, . . . . .	Assaria, Saline.
Thomas Lormar Jones, . . . . .	Manhattan, Riley.
Edward Clarence Joss, . . . . .	Fairview, Brown.
Olive Jane Kearns, . . . . .	Manhattan, Riley.



<i>Name.</i>	<i>Post Office and County.</i>
Royal S. Kellogg, . . . . .	Fay, Russell.
John Milton Kimball, . . . . .	Manhattan, Riley.
Byron Kirkpatrick, . . . . .	Fredonia, Wilson.
Mark Kirkpatrick, . . . . .	Fredonia, Wilson.
Christy Breniser Knox, . . . . .	Manhattan, Riley.
Edith Lynnette Lantz, . . . . .	Manhattan, Riley.
Hilda Margaret Leicester, . . . . .	Manhattan, Riley.
Sue Long, . . . . .	Manhattan, Riley.
Charles W. Lyman, . . . . .	Manhattan, Riley.
August Fred. Mangelsdorf, . . . . .	Atchison, Atchison.
Charles Sumner Marty, . . . . .	Glenn, Johnson.
William Andrew McCullough, . . . . .	Delavan, Morris.
Frederick Hugo Meyer, . . . . .	Menager, [ Leavenworth. ]
Bernard Orlando Moore, . . . . .	Irving, Marshall.
Mrs. Elda Lenore Moore, . . . . .	Manhattan, Riley.
Arthur H. Morgan, . . . . .	Hillside, Phillips.
Clara Verena Newell, . . . . .	Manhattan, Riley.
Oliver Esra Noble, . . . . .	Riley, Riley.
Ellen Elizabeth Norton, . . . . .	Manhattan, Riley.
Mary Augusta Norton, . . . . .	Manhattan, Riley.
Lillian Oldham, . . . . .	Keats, Riley.
Hattie A. Paddleford, . . . . .	Stockdale, Riley.
Albert Alden Paige, . . . . .	Manhattan, Riley.
Mary Kerilla Painter, . . . . .	Meade, Meade.
Inez Luella Palmer, . . . . .	Clifton, Clay.
Ida Rebecca Pape, . . . . .	Topeka, Shawnee.
Fannie Parkinson, . . . . .	Pomona, Franklin.
Archie Carpenter Peck, . . . . .	Big Valley, Texas.
Arthur Lewis Peter, . . . . .	Oakland, Shawnee.
Will Oscar Peterson, . . . . .	Randolph, Riley.
Eva Louise Philbrook, . . . . .	Chepstow, Washington.
Rufus M. Philbrook, . . . . .	Chepstow, Washington.
Charles Edwin Pincomb, . . . . .	Glenn, Johnson.
Mary Josephine Pincomb, . . . . .	Glenn, Johnson.
John Poole, . . . . .	Briggs, Geary.
Edgar Arthur Powell, . . . . .	Osage City, Osage.
Lisle Willetts Pursel, . . . . .	Columbus, Cherokee.
Charles Duncan Rees, . . . . .	Delphos, Ottawa.
William Joseph Rhoades, . . . . .	Gardner, Johnson.
Howard Newton Rhodes, . . . . .	Manhattan, Riley.
Carl Rice, . . . . .	Manhattan, Riley.
Frank Ledgwood Richardson, . . . . .	Grand Summit, Cowley.
Ambrose Elliot Ridenour, . . . . .	Manhattan, Riley.
Mary Etta Ridenour, . . . . .	Manhattan, Riley.
Stanley Robbins, . . . . .	White City, Morris.
Norman S. Roberts, . . . . .	Manhattan, Riley.
Thomas Mead Robertson, . . . . .	Manhattan, Riley.
Homer Joseph Robison, . . . . .	Yates Center, Woodson.
Fritz Rummel, . . . . .	Hartford, Lyon.
Grace Anna Secrest, . . . . .	Randolph, Riley.
Alice Myrtle Shofe, . . . . .	Manhattan, Riley.

<i>Name.</i>	<i>Post Office and County.</i>
Asa Smith, . . . . .	Osborne, Osborne.
Alfred Caleb Smith, . . . . .	Manhattan, Riley.
Edwin Lee Smith, . . . . .	Manhattan, Riley.
Frank Eldon Smith, . . . . .	Bloomington, Osborne.
Oliver Russell Smith, . . . . .	Manhattan, Riley.
Carl Snyder, . . . . .	Oskaloosa, Jefferson.
Max Gilbert Spalding, . . . . .	Enreka, Greenwood.
Lonise Mary Spohr, . . . . .	Manhattan, Riley.
Eva Electa Staley, . . . . .	Oklannion, Texas.
Daniel Morgan Steele, . . . . .	Dallas, Missouri.
Orville Ashford Stingley, . . . . .	Manhattan, Riley.
Charles Harrison Stokely, . . . . .	Bnrlingame, Osage.
Gertrude Ella Stnmp, . . . . .	Manhattan, Riley.
William Thomas Taylor, . . . . .	Onaga, Pottawatomie.
Frances Eleanor Thackrey, . . . . .	Manhattan, Riley.
Helen B. Thompson, . . . . .	Wamego, Pottawatomie.
Emma Tidler, . . . . .	Olsburg, Pottawatomie.
James Dunbar Trumbull, . . . . .	Manhattan, Riley.
Frank Edwin Uhl, . . . . .	Gardner, Johnson.
Mattie M. Vale, . . . . .	Alton, Osborne.
Harriet Agnes Vandivert, . . . . .	Bethany, Missouri.
Lacy Ward, . . . . .	Wetmore, Nemaha.
Elsie Lucille Waters, . . . . .	Weston, Geary.
John Minton Westgate, . . . . .	Westgate, Geary.
John C. Wilkin, . . . . .	Bow Creek, [Rooks.]
Mary Elizabeth Wilkin, . . . . .	Bow Creek, [Rooks.]
Hattie Ethel Yenawine, . . . . .	Manhattan, Riley.
Frank Yeoman, . . . . .	La Crosse, Rnsh.
Frederick Zimmerman, . . . . .	East Norway, Doniphan.

## FIRST YEAR.

Samnel John Adams, . . . . .	Marvin, Phillips.
Charles Ainsworth, . . . . .	Ocheltree, Johnson.
George Anderson, jr., . . . . .	Valencia, Shawnee.
Margaret Anderson, . . . . .	Manhattan, Riley.
William Anderson, . . . . .	Cleburne, Pottawatomie.
Roy Wilson Ashbrook, . . . . .	Linwood, Leavenworth.
Edward Jerome Baird, . . . . .	Dearth, Pennsylvania.
Ida May Banker, . . . . .	Knhnbrook, Marion.
Harley Finney Barber, . . . . .	White City, Morris.
Edgar Russell Barker, . . . . .	Kansas City, Wyandotte.
Rnth Barlow, . . . . .	Manhattan, Riley.
Ella May Barnard, . . . . .	Manhattan, Riley.
Etta M. Barnard, . . . . .	Manhattan, Riley.
James Cameron Bayless, . . . . .	Melvorn, Osage.
Jessie G. Bayless, . . . . .	Yates Center, Woodson.
Howard Joe Beachnm, . . . . .	Manhattan, Riley.
Charles Edward Bennett, . . . . .	Wheaton, Pottawatomie.
Michal Bennett, . . . . .	Wheaton, Pottawatomie.

<i>Name.</i>	<i>Post Office and County.</i>
Theresa A. Bennett, . . . . .	Wheaton, Pottawatomie.
Wilhelm Bentzen, . . . . .	Coblentz, <i>Germany</i> .
Roger William Bishoff, . . . . .	Endora, Douglas.
Stella May Blaney, . . . . .	Bigelow, Marshall.
Lewis Linwood Boggs, . . . . .	Manhattan, Riley.
Ferdinand Bonrgois, . . . . .	Cologne, <i>Germany</i> .
Robert Harry Boyce, . . . . .	Osborne, Osborne.
Albert James Bradshaw, . . . . .	Hoyt, Jackson.
Alie Robert Bradshaw, . . . . .	Hoyt, Jackson.
Hope Brady, . . . . .	Manhattan, Riley.
Sherman George Britton, . . . . .	Section, Coffey.
George Brooks, . . . . .	Manhattan, Riley.
Earl Brown, . . . . .	Powhattan, Brown.
Harry Donglass Brown, . . . . .	Topeka, Shawnee.
Robert Henry Brown, . . . . .	Manhattan, Riley.
Nellie Lonise Burtner, . . . . .	Manhattan, Riley.
Timothy John Bntler, . . . . .	Glasco, Cloud.
Clyde Farley Caldwell, . . . . .	Scandia, Republic.
Hayes Carnahan, . . . . .	Seneca, Nemaha.
Mary Frances Carnell, . . . . .	Bunker Hill, Russell.
Myra Florence Chandler, . . . . .	Manhattan, Riley.
William Burns Chase, . . . . .	Hoyt, Jackson.
Myrtle Chellis, . . . . .	Yates Center, Woodson.
Blanche Temple Clark, . . . . .	Burlingame, Osage.
Ella Clark, . . . . .	Manhattan, Riley.
Robert Waitman Clothier, . . . . .	Vera, Wabaunsee.
William Noah Coffey, . . . . .	Manhattan, [Pottawatomie.]
William Ranson Correll, . . . . .	Overbrook, Osage.
George Retilley Crawford, . . . . .	Manhattan, Riley.
Mabel Crump, . . . . .	Manhattan, Riley.
Lydia Loretta Cnrrie, . . . . .	Olsbnrg, Pottawatomie.
Anna Magdalena Dahl, . . . . .	Webber, Jewell.
Inga Josephine Dahl, . . . . .	Webber, Jewell.
Bertha May Dalrymple, . . . . .	Simpson, Mitchell.
Harry Rea Davis, . . . . .	Scammon, Cherokee.
Foster Hamilton Day, . . . . .	Manhattan, Riley.
Robert Rodman Denny, . . . . .	Garden City, Finney.
Fred Volley Dial, . . . . .	Cleburne, Riley.
John Marcus Dill, . . . . .	Eskridge, Wabaunsee.
Lulu Sarah Dill, . . . . .	Eskridge, Wabaunsee.
Leanna Mabelle Dodge, . . . . .	Manhattan, Riley.
Andrew Haldane Doig, . . . . .	Coldwater, Comanche.
Christopher Dolby, . . . . .	Athelstane, Riley.
Samuel Dolby, . . . . .	Athelstane, Riley.
Emma Phillipine Doll, . . . . .	Larned, Pawnee.
Ida Dongherty, . . . . .	Manhattan, Riley.
Olive May Drake, . . . . .	Manhattan, Riley.
Lillie Eakin, . . . . .	Manhattan, Riley.
Edwin Amos Eggleston, . . . . .	El Reno, <i>Oklahoma</i> .
Alonzo Lawrence Eidson, . . . . .	West Plains, Meade.
Mary Caroline Eikenhorst, . . . . .	Manhattan, Riley.

<i>Name.</i>	<i>Post Office and County.</i>
Anna Phillipina Engel, . . . . .	Manhattan, Riley.
J. H. Enlow, . . . . .	Pavilion, Wabannsee.
George Rea Evans, . . . . .	Tecumseh, Shawnee.
Henrietta Evans, . . . . .	Manhattan, Riley.
Samnel Frank Evans, . . . . .	Oronogue, Norton.
Sarah Jane Evans, . . . . .	Riley, Riley.
Andrew George Farley, . . . . .	Big Bend, Phillips.
Guy Francis Farley, . . . . .	Melvern, Osage.
Don Scott Farman, . . . . .	Manhattan, Riley.
George W. Farmer, . . . . .	White City, Morris.
Edwin Oscar Farrar, . . . . .	Axtell, Marshall.
James Webster Finley, . . . . .	Goodland, Sherman.
William Dennison Forsyth, . . . . .	Fort Riley, Geary.
Walter Scott Forsyth, . . . . .	Carbondale, Osage.
Rolland Frank Foster, . . . . .	Osborne, Osborne.
Philip Fox, . . . . .	Manhattan, Riley.
Myrtle Belle Gay, . . . . .	Ellsmore, Allen.
Archibald Fredrick Gildemeister, . . . . .	Connecil Grove, Morris.
Mable Clare Gillespie, . . . . .	Manhattan, Riley.
Charles M. Ginter, . . . . .	Valley Falls, Jefferson.
Effie Gist, . . . . .	Lewiston, Nebraska.
John V. Goodsheller, . . . . .	Conway, McPherson.
Edward Gorham, . . . . .	Topeka, Shawnee.
George McClung Green, . . . . .	Manhattan, Riley.
Ned Merrill Green, . . . . .	Manhattan, Riley.
George Madden Grimes, . . . . .	Fort Riley, Geary.
George Caleb Grisier, . . . . .	Yates Center, Woodson.
Mollie E. Gront, . . . . .	Oakland, Shawnee.
Annie Francis Hacker, . . . . .	Manhattan, Riley.
Bert Hackett, . . . . .	Olathe, Johnson.
John George Haney, . . . . .	Courtland, Repnblic.
Rose Hardy, . . . . .	Manhattan, Riley.
Albion Fellows Hargrave, . . . . .	St. Mary's, Pottawatomie.
Charles Bland Harling, . . . . .	Olsburg, Pottawatomie.
Florence Harling, . . . . .	Olsbnrg, Pottawatomie.
Everett Clinton Harper, . . . . .	Big Bend, Phillips.
Herbert Fisk Hatch, . . . . .	Manhattan, Riley.
Leona May Heaton, . . . . .	Hill City, Graham.
Matthew Lloyd Heckert, . . . . .	Deering, Montgomery.
Joseph T. Helm, . . . . .	Manhattan, Riley.
James Raymond Henry, . . . . .	Wilsey, Morris.
Clarence R. Hepler, . . . . .	Manhattan, Riley.
William Samuel Hiestand, . . . . .	Yates Center, Woodson.
Jonathan Harvey Hoge, . . . . .	Genda Springs, Sumner.
John Oscar Hoge, . . . . .	Oxford, Sumner.
Myrte May Holcomb, . . . . .	Burlingame, Osage.
Thomas Mason Holland, . . . . .	Cokeville, Wyoming.
Clarence Franklin Hood, . . . . .	Manhattan, Riley.
George Ralph Hopkins, . . . . .	Garnett, Anderson.
Edward Leonard Hougham, . . . . .	Manhattan, Riley.
Charles Wilson Howard, . . . . .	Belvidere, Kiowa.

<i>Name.</i>	<i>Post Office and County.</i>
Cora Alice Howard, . . . . .	Manhattan, Riley.
Ralph John Wesley Howard, . . . . .	Manhattan, Riley.
Howard Howe, . . . . .	Fredonia, Wilson.
Ruel De Forest Hubbard, . . . . .	Olathe, Johnson.
Thomas Jefferson Hughes, . . . . .	Osage City, Osage.
Henry Dallas Huxley, . . . . .	Princeton, Franklin.
Ada Ingman, . . . . .	Barnes, Washington.
Bertha Emma Ingman, . . . . .	Barnes, Washington.
Clay Berkey Ingman, . . . . .	Barnes, Washington.
Emma Jacobs, . . . . .	Monterey, Riley.
Mary Jacobs, . . . . .	Monterey, Riley.
Ary Cordelia Johnson, . . . . .	Success, Russell.
Herbert W. Johnson, . . . . .	Homewood, Franklin.
Lillian Elsie Johnson, . . . . .	Manhattan, Riley.
Macy Henry Johnson, . . . . .	Elmdale, Chase.
Annie L. Kelley, . . . . .	Keats, Riley.
John Martin Kessler, . . . . .	Topeka, Shawnee.
John Ben. Kimball, . . . . .	Manhattan, Riley.
Anna Josephine Kimble, . . . . .	Keats, Riley.
Mary Elizabeth Kimble, . . . . .	Keats, Riley.
Carl Klemp, . . . . .	Topeka, Shawnee.
Nellie Blanche Layton, . . . . .	Manhattan, Riley.
Patience Leah Layton, . . . . .	Keats, Riley.
George F. Lechner, . . . . .	Wilson, Ellsworth.
Robert Milton Lee, . . . . .	Manhattan, Riley.
Fred. Ensworth Leeper, . . . . .	Graham, Missouri.
Lula Sanford Leonard, . . . . .	Burlingame, Osage.
Flora Estella Livings, . . . . .	Manhattan, Riley.
James C. Logan, . . . . .	Myers Valley, Pottawatomie.
Olive Long, . . . . .	Manhattan, Riley.
John Alexander Lovette, . . . . .	Crescent, Kiowa.
Gertrude May Lyman, . . . . .	Manhattan, Riley.
Minnie Eva Lyon, . . . . .	Riley, Riley.
Adolph William Maas, . . . . .	Alma, Wabaunsee.
Valentine Maelzer, . . . . .	Neuchatel, Nemaha.
Inez Isadore Manchester, . . . . .	Chiles, Miami.
Lew Mann, . . . . .	Jamestown, Cloud.
Archie Leroy Marshall, . . . . .	Wa Keeney, Trego.
Hugh Marshall, . . . . .	Wa Keeney, Trego.
Sarah B. Marshall, . . . . .	Manhattan, Riley.
Florence Adelia Martin, . . . . .	Junction City, [Riley.]
Georgia Adell Martin, . . . . .	Manhattan, Riley.
Henry Alba Martin, . . . . .	Junction City, Geary.
Charles Matter, . . . . .	Manhattan, Riley.
Nannie Catharine McCullough, . . . . .	Delavan, Morris.
George McDowell, . . . . .	Manhattan, Riley.
Harry Floyd McFadden, . . . . .	Wahlsburg, Riley.
Anna Glenn McHugh, . . . . .	Manhattan, Riley.
William Dio McPhee, . . . . .	Anthony, Harper.
Frank W. McQuaid, . . . . .	Mapleton, Bourbon.
Minnie Pearl McQuaid, . . . . .	Mapleton, Bourbon.

<i>Name.</i>	<i>Post Office and County.</i>
Bert Ulysses Medaris, . . . . .	Manhattan, Riley.
Ottielie Anna Meyer, . . . . .	Menager, [ Leavenworth.]
Harvey Robert Miller, . . . . .	Wabannsee, Wabannsee.
Nihle Eugene Mills, . . . . .	Guysville, Ohio.
Norman Mills, . . . . .	Leanna, [ Neosho.]
Jessie Minis, . . . . .	Manhattan, Riley.
Mary Frances Minis, . . . . .	Manhattan, Riley.
George W. Monahan, . . . . .	Manhattan, Riley.
James Spanldine Monahan, . . . . .	Manhattan, Riley.
George Gilchrist Moore, . . . . .	Holton, Jackson.
May Moore, . . . . .	Manhattan, Riley.
William Moore, . . . . .	Brookville, Saline.
Stnart Tilson Morse, . . . . .	Mound City, Linn.
Leon Nagels, . . . . .	St. Mary's, Pottawatomie.
Sherman Bodwell Newell, . . . . .	Zeandale, Riley.
Rufus Paul Newman, . . . . .	Clay Centre, Clay.
Gny Brunaugh Norris, . . . . .	Garden City, Finney.
Jesse Baker Norton, . . . . .	Manhattan, Riley.
Bertha Olivia Olson, . . . . .	Manhattan, Riley.
Hilda Sophia Olson, . . . . .	Manhattan, Riley.
Mary Elizabeth Paddleford, . . . . .	Stockdale, Riley.
Clesson Melville Park, . . . . .	Labette, Labette.
Emilie Matilde Pfuetze, . . . . .	Manhattan, Riley.
J. Arthnr Plowman, . . . . .	Jewell City, Jewell.
William Poole, . . . . .	Briggs, Geary.
William Thomas Pope, . . . . .	Lincolnville, Marion.
Leonard Poston, . . . . .	Netawaka, Jackson.
Francis Pulver, . . . . .	Chapman, Dickinson.
John Purcell, . . . . .	Manhattan, Riley.
Annie Elizabeth Pntnam, . . . . .	Athelstane, Clay.
Llewellen Victor Pntnam, . . . . .	Athelstane, Clay.
Sarah Eliza Rathbone, . . . . .	Manhattan, Riley.
Arthur Orville Remington, . . . . .	Clay Centre, Clay.
Joe Reybnrn, . . . . .	Leavenworth, Leavenworth.
Harry Otice Rhodes, . . . . .	Gardner, Johnson.
Mary Rhodes, . . . . .	Kuhnbrook, Marion.
Abba Rice, . . . . .	Manhattan, Riley.
John Henry Rice, . . . . .	Manhattan, Riley.
Barnhart Jnlus Richter, . . . . .	Oskaloosa, Jefferson.
Jennie Florence Ridenour, . . . . .	Manhattan, Riley.
Lettie Edith Rigney, . . . . .	Manhattan, Riley.
William Harry Roberts, . . . . .	Wahlsbnrg, Riley.
Bernice Emily Rogers, . . . . .	Manhattan, Riley.
Harry Clark Rogers, . . . . .	Manhattan, Riley.
Alvira Salkeld, . . . . .	Manhattan, Riley.
Martin Wilbnr Sanderson, . . . . .	Reedville, Marshall.
Charles Sandstrom, . . . . .	Cleburne, [ Pottawatomie.]
John Wilbnr Sargent, . . . . .	Riley, Riley.
Henry S. Savage, . . . . .	Cowles, Nebraska.
Clarence Patterson Scott, . . . . .	North Topeka, Shawnee.
Otto David Secrest, . . . . .	Randolph, Riley.

<i>Name.</i>	<i>Post Office and County.</i>
Henry Sharp, . . . . .	Bartlett, Labette.
May Mitchell Shearer, . . . . .	Frankfort, Marshall.
Olive M. Sheldon, . . . . .	Manhattan, Riley.
Edward Shellenbaum, . . . . .	Randolph, Riley.
Fred. Eugene Shepherd, . . . . .	Maple Hill, Wabaunsee.
Gertrude Werden Shofe, . . . . .	Manhattan, Riley.
Emma Almira Shull, . . . . .	Manhattan, Riley.
Charles Thomas Sigler, . . . . .	Wa Keeney, Trego.
Charles Francis Smith, . . . . .	Humboldt, Allen.
Phoebe Jane Smith, . . . . .	Manhattan, Riley.
Wilhelmina Henrietta Spohr, . . . . .	Manhattan, Riley.
Guy Raymond Spurr, . . . . .	Oswego, Labette.
James Lawton Stanley, . . . . .	Westmoreland, Pottawatomie.
Allen Wilson Staver, . . . . .	Dallas, Missouri.
Robert Addy Stewart, . . . . .	Maple Hill, Wabaunsee.
Anna Louise Stingley, . . . . .	Manhattan, Riley.
Henry Ashford Stingley, . . . . .	Manhattan, Riley.
Otho Strahl, . . . . .	White City, Morris.
Samuel Morris Strawn, . . . . .	Valley Falls, Jefferson.
John L. Swanson, . . . . .	Madison, Greenwood.
Cyrus Alfonso Swartz, . . . . .	Hiawatha, Brown.
Andrew B. Symns, . . . . .	Brenner, Doniphan.
Edward Teehan, . . . . .	Blaine, Pottawatomie.
Clarence Edgar Tennison, . . . . .	Norwood, Franklin.
Nora May Tennison, . . . . .	Norwood, Franklin.
Cora Gertrude Thackrey, . . . . .	Manhattan, Riley.
Harriet Emerson Thackrey, . . . . .	Manhattan, Riley.
Martha Smith Trego, . . . . .	Mound City, Linn.
John E. Trembly, . . . . .	Council Grove, Morris.
Raymond S. Vail, . . . . .	Manhattan, Riley.
Charles Thomas Vail, . . . . .	Alton, Osborne.
Julian Frederic Vallette, . . . . .	Glen Elder, Mitchell.
Thomas P. Van Orsdol, . . . . .	Silver Lake, Shawnee.
Bessie Voiles, . . . . .	Manhattan, Riley.
Orin Russell Wakefield, . . . . .	Wilsey, Morris.
Harry Walters, . . . . .	Manhattan, Riley.
Ida L. Walters, . . . . .	Manhattan, Riley.
Gertie May Warner, . . . . .	Upper Sandusky, Ohio.
Flora Etallee Waugh, . . . . .	Manhattan, Riley.
Edd Bradley Whealy, . . . . .	Wellington, Sumner.
Mark Wheeler, . . . . .	Bridgeport, Saline.
Willard Whitford, . . . . .	Manhattan, Riley.
Guy Whitson, . . . . .	Vincent, Osborne.
Jot R. Whitson, . . . . .	Vincent, Osborne.
Charles Eugene Willey, . . . . .	Tehama, Cherokee.
Milton Brainard Williams, . . . . .	Edgerton, Johnson.
Clare Annie Wilson, . . . . .	Mapleton, Benrbon.
James M. Wright, . . . . .	Denison, Jackson.
Mary Alice Wright, . . . . .	Denison, Jackson.
William Alexander Wright, . . . . .	Denison, Jackson.

<i>Name.</i>	<i>Post Office and County.</i>
Alva Ernest Yeager, . . . . .	Oxford, Sumner.
Ada Almeda Zimmerman, . . . . .	Olathe, Johnson.
Baird Horton Zimmerman, . . . . .	Olathe, Johnson.

## SUMMARY.

	<i>Gentle- men.</i>	<i>Ladies.</i>	<i>Total.</i>
Postgraduate.....	14	11	25
Fourth year.....	25	17	42
Third year.. ..	43	29	72
Second year.....	86	55	141
First year.....	178	97	275
Totals.....	346	209	555

From 67 counties of Kansas, 527.

From 14 other states, 28.

Applicants not enrolled, 11.



MAIN COLLEGE HALL





STUDENTS JUDGING THE DAIRY CATTLE.

## History and Resources.

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AN act of Congress, approved July 2, 1862, gave to each state public lands to the amount of 30,000 acres for each of the senators and representatives in Congress according to the census of 1860, for the "endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Under this act, the state of Kansas received 82,313.53 acres of land, and, in 1863, established the State Agricultural College, by endowing with these lands Bluemont College, which had been erected two miles from Manhattan, under the auspices of the M. E. Church, but was presented to the state for the purpose named in the act of Congress.

In 1873, the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 219 acres, one mile from the city of Manhattan. On this fine location the state has provided buildings valued at \$210,000; of these a description is given elsewhere. The farm and grounds, furniture, stock, and other illustrative apparatus, are valued at \$165,000. The present value of buildings, grounds, apparatus, etc., is almost exactly equal to the sum of all appropriations by the state. All the lands have been sold, giving a fund of \$502,927.35, which is by law invested in bonds, the interest alone being used for the current expenses of the College.

The annual income from the endowment fund—about \$30,000—is supplemented by an appropriation under an act of Congress approved August 30, 1890, of \$15,000 for 1890, and a sum increasing each year by \$1,000 until the annual amount shall be \$25,000. This fund is "to be applied only to instruction in agriculture, the mechanic arts, and the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction." "No portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings."

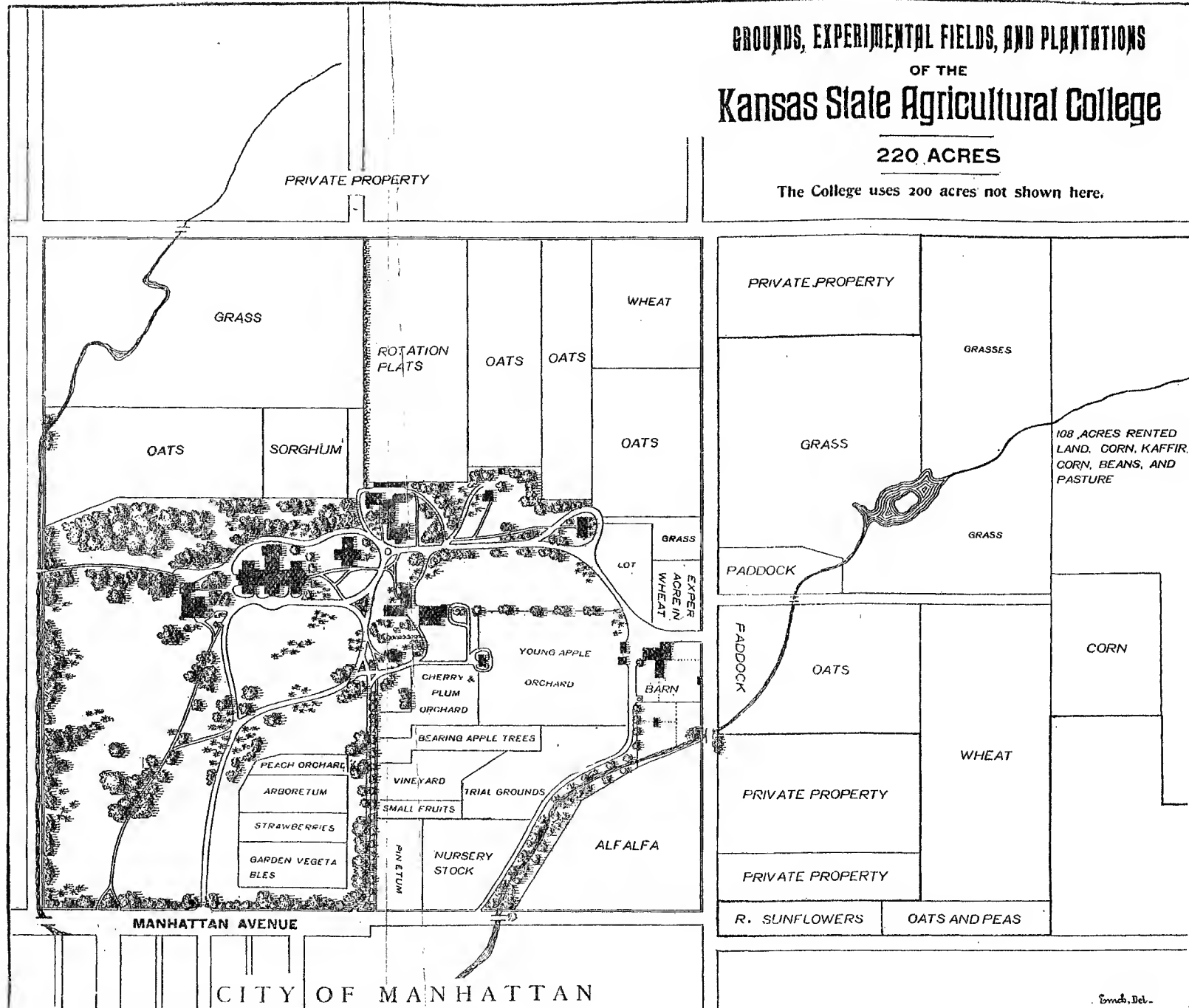
All expense of instruction is thus provided for, and the state is left to erect and maintain the necessary buildings and meet expenses in management of the funds.

Under an act of Congress approved March 7, 1887, the college receives, by general appropriation in Congress, \$15,000 each year for the maintenance of an Experiment Station, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The property of the Station, including a building erected especially for its use, amounts to more than \$10,500.

GROUNDS, EXPERIMENTAL FIELDS, AND PLANTATIONS  
 OF THE  
**Kansas State Agricultural College**

220 ACRES

The College uses 200 acres not shown here.





## Grounds and Buildings.

THE College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing towards the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape gardener, while well-graveled drives and good walks lead to the various buildings. All of these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recitation rooms are excellently lighted and ventilated, and all are heated by steam or hot water. A complete system of sewerage has been provided. The buildings stand as indicated in the plat accompanying the following description:

College, 152x250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices, reception room, cloak rooms, studies, chapel, library, reading room, kitchen laboratory and dairy, sewing room, printing office, and 14 class rooms.

Chemical laboratory, one story, 26x90 and 46x75 feet of floor space, in form of a cross. It contains seven rooms, occupied by the department of chemistry and mineralogy.

Mechanics hall, 39x103 feet, two stories, and 40x80 feet, one story, occupied by wood and iron shops, finishing shop, class room, and music rooms. A foundry, 32x42 feet, is attached.

A central steam plant furnishes heat and power to the buildings.

Horticultural hall, 32x80 feet, one story and cellar, having cabinet room, class room, and storage, with greenhouse attached.

Horticultural laboratory, with six propagating houses attached.

Armory and veterinary laboratory, 46x96 feet, two stories. This building, which has served many purposes, is now fitted for an armory and drill room below, and for class room, laboratory and veterinary museum for the department of physiology and veterinary science above.

Library and agricultural science hall, 96x140 feet, three and four stories. This building, just completed, provides permanent quarters for the library, with ample reading room; class rooms, laboratories, and cabinet room for zoölogy, entomology, and botany; and suitable rooms for the various College societies.

The farm barn is a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x50 feet. A

basement, having stables for 75 head of cattle, silos, engine room, and granaries, underlies the entire structure.

The horticultural barn is a stone building, containing storeroom, granary, and stables for several horses.

The foundries, lumber house, implement house, piggery and various out-buildings are of wood.

Two stone dwellings, occupied by the President and the Professor of Agriculture.

#### LIBRARY.

The library consists of 14,500 bound volumes and about 4,500 pamphlets, and is valued at \$27,500. It has been selected mainly with a view to supplementing the class-room instruction in the various departments. All the books are indexed in a card catalogue, so that the resources of the library upon any subject may be readily learned. All students have free access to the bookshelves, and may draw the books for home use, under simple and most liberal regulations.

The College subscribes for the leading literary, scientific and agricultural journals; while the principal daily and weekly papers of Kansas, and many from other states, are received in exchange for the College publications. All these are kept on file for the use of students and Faculty.

The College has been designated as the depository of United States public documents for the fifth congressional district of Kansas. About 1,000 volumes have already been received on this account.

The library is open daily, except on legal holidays. During the College terms, the library hours are from 8 A. M. to 4 P. M., and during vacation from 9 A. M. to 12 M. The Librarian or the assistant is in constant attendance at these hours to assist those who use the books.

An approximate estimate of the number of books, including public reports and bound periodicals, by classes, is as follows:

<i>Classes.</i>	<i>Vols.</i>	<i>Classes.</i>	<i>Vols.</i>
Agriculture .....	1,575	History .....	650
Horticulture .....	600	Biography .....	475
Mechanics and engineering .....	500	Geography and travels .....	350
Mathematics and astronomy .....	300	Dictionaries and cyclopedias .....	200
Physics and meteorology .....	375	Philology .....	150
Chemistry and mineralogy .....	475	Education .....	400
Geology .....	450	Law .....	110
Botany .....	550	Administrative reports .....	650
Zoology .....	375	Public documents on deposit .....	1,100
Entomology .....	175	Fiction, including juveniles .....	250
Physiology and sanitary science .....	325	Essays and literary criticism .....	350
General science, proceedings, etc. ....	700	Poetry .....	150
Military science .....	160	Logic and philosophy .....	240
Domestic science .....	110	Religion and morals .....	500
Political science .....	375	Fine arts .....	275
Bound magazines .....	1,450	Miscellaneous .....	200



## Objects.

THIS College now accomplishes the objects of its endowment in several ways:

*First*, It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are offered in all its departments, while the students are kept in sympathy with the callings of the people.

*Second*, It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoölogy and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science; and all are enforced by actual experiment.

*Third*, It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household departments is made a part of a general education to usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

*Fourth*, It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The professors of agriculture, horticulture, chemistry, botany, and veterinary science, together with the President of the College, form the Experiment Station Council, by authority of which experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bear-

ing directly on the agricultural industry of the United States as may in each case be deemed advisable."

The bulletins of the Station, issued at least as often as once in three months, are sent, according to law, free of postage, to all newspapers in the state, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the several members of the Council.

*Fifth*, It seeks to extend the influence of knowledge in 'practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in about 50 counties of the state, in which from two to four members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes, held for the past 13 years, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. The members of the Faculty desire correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences.

The *Industrialist*, published weekly, and edited by Faculty and students, gives a wide circulation to matters of similar interest in the College. To serve a similar end, a course of 30 lectures is given at the College during two weeks in February of each year, to which farmers from all parts of the state are invited. Members of the Faculty are also prominently connected with state associations for the promotion of agriculture, horticulture, the natural sciences, and education in general.

## Methods.

THE necessity for so adjusting various branches of a course of study that there shall be as little waste as possible in acquiring both information and discipline, is felt by every teacher. Such a course is not designed to be absolutely inflexible, but to guide the judgment into some definite line of progress from which no mere whim shall turn a student aside. Students in irregular courses are expected to take the equivalent for the required duties of the term; variations from this rule can be made only with the consent of the Faculty.

Parallel courses are offered to both sexes, with such differences as their necessities seem to call for. The following gives the general scope of the two, but fuller explanations are found under "Outline of Instruction":

### COURSE OF STUDY.

[Numerals denote number of class hours per week. When no work outside of class is required, italics are used.]

#### FIRST YEAR.

<i>Fall Term</i> . . . .	Algebra, 5.
14 weeks.	English Analysis, 5.
	Botany, 5.
	<i>Free-hand Drawing</i> , 3.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , 4.
<i>Winter Term</i> . .	Algebra, 5.
12 weeks.	English Composition, 5.
	Bookkeeping, one-half term, 5. Commercial Law, 1.
	Geometrical Drawing, one-half term, 5.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , 3.
<i>Spring Term</i> . .	Algebra, 5.
11 weeks.	English Structure, 5.
	Elementary Physics, 5.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , 5.

#### SECOND YEAR.

<i>Fall Term</i> . . . .	Geometry, 5.
14 weeks.	Horticulture, 5.
	Inorganic Chemistry, 5. <i>Laboratory work</i> , 2.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , 4.

*Winter Term*.. Geometry, one-half term, 5.  
     *12 weeks.*    Projection Drawing, one-half term, 5.  
                   Agriculture, for young men, 5.  
                   Household Economy, for young women, 5.  
                   Organic Chemistry, one-half term, 5.  
                   Mineralogy, one-half term, 5. *Laboratory work*, 5.  
                   Military Science, one-half term, 2.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, 3.

*Spring Term*... Descriptive Geometry, 5.  
     *11 weeks.*    Entomology, 5.  
                   Analytical Chemistry, 10.  
                   Military Science, 2.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, 5.

### THIRD YEAR.

*Fall Term*.... Trigonometry and Surveying, 5. *Surveying Practice*, 2.  
     *14 weeks.*    General History, 5.  
                   Anatomy and Physiology, 10 weeks, 5.  
                   Chemistry of Foods, four weeks, 5.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, optional.

*Winter Term*.. Mechanics, 5.  
     *12 weeks.*    Civics, 5.  
                   Zoölogy, 5.  
                   *Map Drawing*, about 30 hours a term.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, optional.

*Spring Term*... Geology, 5.  
     *11 weeks.*    Rhetoric, 5.  
                   Agricultural Chemistry, 5.  
                   Perspective and *Sketching*, 4.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, optional.

### FOURTH YEAR.

*Fall Term*.... Physics and Meteorology, 5.  
     *14 weeks.*    English Literature, 5.  
                   Agriculture, for young men, 5.  
                   Hygiene, for young women, 5.  
                   *Object Drawing*, 4.  
                   Rhetoricals, 1.  
                     *Industrial*, 5.  
                     *Military Drill*, optional.

<i>Winter Term</i> . .	Physics, one-half term, 5.
<i>12 weeks.</i>	History of Industry and Science, one-half term, 5.
	Psychology, 5.
	Botany, 5.
	Veterinary Science, for young men, 5.
	Floriculture, for young women, 5.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , optional.
<i>Spring Term</i> . .	Political Economy, 5.
<i>11 weeks.</i>	Logic, 5.
	Engineering, for young men, 5.
	Literature, for young women, 5.
	Rhetoricals, 1.
	<i>Industrial</i> , 5.
	<i>Military Drill</i> , optional.

#### INDUSTRIAL TRAINING.

Closely adjusted to the course of study is industrial training in several of the arts, to which each student is required to devote at least one hour a day. Among the lines of training, each student may select, with the approval of the Faculty, except in terms when special industrials are required. Young men may have farming, gardening and fruit growing, woodwork and iron-work, or printing. Young women may take cooking, sewing, printing, floriculture, or music. The training in these departments is designed to be systematic and complete in each, so that the student following a single line diligently through the four-years course gains the essentials of a trade and a reasonable degree of skill. Those who wish only a general training in the arts can take shorter courses in several of them.

All young men must have their industrials for one term in the carpenter shop before completing the first year; and during the spring term of the second, and the fall term of the third year, upon the farm, garden, and orchards. Young women take their industrial for one term of the first year in sewing, and for the winter and spring terms of the second year in the kitchen laboratory and dairy.

#### SPECIAL COURSES.

Persons of suitable age or advancement, who desire to pursue such branches of study as are most directly related to agriculture or other industries, may select such studies under the advice of the Faculty. Fourth-year students may be permitted to lengthen their course one year for advanced study in the arts and sciences given special prominence in this institution.

#### SHORT LECTURE COURSE FOR FARMERS.

Beginning on the first Tuesday of February each winter, a two-weeks course of lectures is given on agriculture and related arts and sciences. This

is provided for those farmers and others who cannot take up the fuller work of the regular College classes. Members of the Faculty are assisted in delivering these lectures by prominent farmers, stock raisers and fruit growers of the state; and full discussions of the topics presented bring out the varied experiences of those attending.

#### POSTGRADUATE COURSES.

Arrangements can be made for advanced study in the several departments at any time, and outlines of courses will be furnished on application. Special opportunities for investigation and research will be afforded at all times to resident graduates in agriculture and agricultural chemistry, physics and chemistry, horticulture and botany, zoölogy and entomology, mathematics, engineering, and drafting. Every facility for advancement in the several arts taught at the College will be given such students, though they are not required to pursue industrial training while in these courses.

#### DEGREES.

The degree of BACHELOR OF SCIENCE is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for state teacher's certificate. (See act of legislature approved March 11, 1893.)

The degree of MASTER OF SCIENCE is conferred in course upon graduates who comply with the following conditions:

1. Each candidate shall furnish evidence satisfactory to the Faculty of proficiency in at least one of each of the groups of arts and sciences here named:

ARTS.	SCIENCES.
Agriculture.	Botany.
Horticulture.	Chemistry.
Engineering.	Zoölogy.
Architecture and Designing.	Entomology.
Domestic Economy.	Physics.

2. Each candidate must present for consideration by the Faculty a satisfactory thesis, involving original researches in line with one or the other of the courses pursued as above, and shall deposit a perfect copy in the College library.

3. Application to the Faculty for sanction of the lines of study and research selected should be made as early as the first day of November, and the subject of the thesis must be settled upon as soon as the first day of January preceding the commencement at which the degree is expected.

4. Upon candidates resident at least one year, the degree may be conferred at the end of a two-years course; upon nonresident candidates, the degree may be conferred at the end of a three-years course.

In a resident postgraduate course of study, as provided for by rule 4, the work required shall be the equivalent of that necessary to pursue three full

studies, the time in the aggregate to be divided approximately into three equivalents, two to the major and one to the minor study.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of MASTER OF SCIENCE may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the master's degree must be a graduate of at least three years' standing, and a resident of Kansas.
  2. His postgraduate study shall have been in line with that required of graduates of this College, as published in our catalogue.
  3. He must make application for the degree on or before the first day of January preceding the granting of the same. The application must be accompanied with a statement of his course of study, the work upon which the claim for the degree is based, and the subject selected for his thesis.
  4. By April 1, an abstract of the thesis must be submitted to the Faculty.
  5. Before May 15, the applicant shall present himself for examination.
- The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.

## CLASS HOURS—1894-'95.

(Monday to Friday. Saturday Free.)

HOUR.		FIRST YEAR.			
FALL TERM—14 WEEKS.	8:30	Chapel Exercises.			
	8:50	Botany.	Rhetoricals. Free-hand Drawing.	English Analysis.	Algebra I.
	9:40	English Analysis.	Industrials.	Bookkeeping. Geom. Drawing.	Geom. Drawing. Bookkeeping.
	10:30	Algebra.	English Analysis.	Industrials.	Rhetoricals. Free-hand Drawing.
	11:20	Rhetoricals. Free-hand Drawing.	Botany.	Algebra I.	Industrials.
	12:10	Industrials.	Algebra I.	Rhetoricals. Free-hand Drawing.	English Analysis.
	1:30	Iron Work, Farm, Garden, Singing Classes.			
	3:50	Military Drill, except Fridays.			
WINTER TERM—12 WEEKS.	8:30	Chapel Exercises.			
	8:50	Algebra II.	Industrials.	English Composition.	Rhetoricals. Com'l Law. Drill.
	9:40	Bookkeeping. Geom. Drawing.	Geom. Drawing. Bookkeeping.	Industrials.	Algebra II.
	10:30	Industrials.	English Structure.	Rhetoricals. Com'l Law. Drill.	Elementary Physics.
	11:20	English Composition.	Algebra II.	Elementary Physics.	Industrials.
	12:10	Rhetoricals. Com- merc'l Law. Drill.	Rhetoricals. Com- merc'l Law. Drill.	Algebra II.	English Structure.
	1:30	Iron Work, Singing Classes.			
SPRING TERM—11 WEEKS.	8:00	Military Drill. Calisthenics.			
	8:45	Chapel Exercises.			
	9:00	Algebra III.	Industrials.	English Structure.	Botany.
	9:50	Elementary Physics.	Algebra III.	Industrials.	English Composition.
	10:40	English Structure.	Elementary Physics.	Algebra III.	Industrials.
	11:30	Industrials.	English Composition.	Botany.	Algebra III.
	12:20				
	1:40	Rhetoricals, Iron Work, Farm, Garden, Singing Classes.			



CLASS HOURS—1894-'95.

(Monday to Friday. Saturday Free.)

HOUR.		SECOND YEAR.			
FALL TERM—14 WEEKS.	8:30	Chapel Exercises.			
	8:50	Geometry.	Horticulture.	Industriale.	Entomology.
	9:40	Horticulture.	Geometry.	Entomology.	Chemistry.
	10:30	Chemistry.	Industrials.	Geometry.	Chemical Practice. Rhetoricals, Tu.
	11:20	Chemical Practice. Rhetoricals, M.	Chemistry.	Chemical Practice. Rhetoricals, Th.	Industriale.
	12:10	Industriale.	Chemical Practice. Rhetoricals, W.	Chemistry.	Algebra III.
	1:40	Iron Work, Farm, Garden, Singing Classes.			
	3:50	Military Drill, except Friday.			
WINTER TERM—12 WEEKS.	8:30	Chapel Exercises.			
	8:50	Agriculture.	Geometry. Drawing.	Household Economy.	
	9:40	Organic Chemistry. Blowpipe.	Agriculture.	Blowpipe. Organic Chemistry.	Geometry.
	10:30	Geometry. Drawing.	Blowpipe. Organic Chemistry.	Drawing. Geometry.	Organic Chemistry. Blowpipe.
	11:20	Rhetoricals. Drill.	Rhetoricals. Drill.	Mineralogy. Drill. Rhetoricals.	Cooking. Mineralogy.
	12:10	Military Science. Mineralogy.	Mineralogy. Military Science.	Cooking. Military Science.	Military Science. Drill. Rhetoricals.
	1:30	Industrials for Young Men, Singing Classes.			
SPRING TERM—11 WEEKS.	8:00	Military Drill. Callisthenics.			
	8:45	Chapel Exercises.			
	9:00	Des. Geometry.	Horticulture.	Analytical Chemistry.	
	9:50	Entomology.	Des. Geometry.		
	10:40	Rhetoricals. Military Science.	Rhetoricals. Dairy.	Entomology.	Geometry.
	11:30	Analytical Chemistry.		Des. Geometry.	Horticulture.
	12:20			Rhetoricals. Military Science.	Rhetoricals. Dairy.
	1:40	Farm and Garden, Singing Classes.			

## CLASS HOURS—1894-95.

(Monday to Friday. Saturday Free.)

	HOOR.	THIRD YEAR.		FOURTH YEAR.	
FALL TERM—14 WEEKS.	8:30	Chapel Exercises.		Chapel Exercises.	
	8:50	Chem. of Foods. Des. Geometry.	General History.	Agriculture.	Literature.
	9:40	General History.	Trigonometry and Surveying.	Psychology.	
	10:30	Trigonometry and Surveying.	Des. Geometry. Chem. of Foods.	Physics.	Rhetoricals, W.
	11:20	Rhetoricals. Surveying Practice.	Industrials.	Rhetoricals, W.	Physics.
	12:10	Industrials.	Rhetoricals. Surveying Practice.		
	1:30	Farm and Garden.		Industrials, two days. Drawing, two days.	
	3:50	Drill, optional.		Drill, optional.	
WINTER TERM—12 WEEKS.	8:30	Chapel Exercises.		Chapel Exercises.	
	8:50	Zoölogy.	Mechanics.	Botany, two days.	
	9:40	Drill, optional. Industrials.	Civics.	Veterinary Science.	Floriculture.
	10:30	Civics.	Zoölogy.	Zoölogy.	
	11:20	Mechanics.	Rhetoricals, M. Map Drawing.	Descriptive Geometry. History of Industry and Science.	
	12:10	Rhetoricals, M. Map Drawing.	Drill, optional. Industrials.	Drill, optional. Rhetoricals, W.	
	1:30	Industrials for Young Men.		Botany, two days. Industrials, two days.	
SPRING TERM—11 WEEKS.	8:00	Drill, Calisthenics, optional.		Drill, Calisthenics, optional.	
	8:45	Chapel Exercises.		Chapel Exercises.	
	9:00	Rhetoricals, M. Pers. Drawing.	Rhetoric.	Geology.	
	9:50	Agricultural Chemistry.		Logic.	Political Economy.
	10:40	Rhetoric.	Physics.	Political Economy.	Logic.
	11:30	Physics.	Pers. Drawing. Rhetoricals, M.	Rhetoricals, W.	
	12:20	Rhetoricals, M. Pers. Drawing.	Pers. Drawing.		
	1:40	Industrials for Young Men.		Industrials.	



PAVILION AND GARDEN



A PORTION OF THE COLLEGE HALL.

## Outline of Instruction.

### Agriculture.

*Second Year, Winter Term.*—History of agriculture, showing the successive steps by which the art has attained its present position. History and characteristics of breeds: Their adaptation to the varying conditions of soil, climate, and situation; study of the forms of animals, as shown by the different breeds belonging to the College; the relation of stock raising to general farming. Cultivation of hoed crops; management of corn and roots with reference to stock feeding, and the growth of the finer grains. The growth of the tame grasses in Kansas: The best sorts for the state, and their management, as shown by experience upon the College farm and elsewhere. Implements of simple tillage: Mechanical principles involved in their construction. Application of labor. Draught: Different adjustments as affecting draught. Plows for soil and subsoil. Drainage: Soils that need drainage; how to lay out a system of drains.

*Fourth Year, Fall Term.*—General principles governing the development of domestic animals: The laws of hereditary disease—of normal, abnormal and acquired characters; atavism; correlation in the development of parts; in-and-in breeding and crossbreeding; influences affecting fecundity. The selection and arrangement of the farm with reference to the system to be pursued. Rotation of crops: General advantages of a rotation; the best rotation for the distribution of labor, production of manure, and extermination of weeds. Planning farm buildings—barns, piggeries, and stables. Manure: How best housed and applied; composting; commercial fertilizers. Agricultural experiments; field and feeding experiments. Stock feeding and meat production: Stall feeding; soiling.

*Farm Work.*—The young men are required to work on the farm five hours a week during half of the spring term of the second year, and half of the fall term of the third year, in all representing 60 hours required work, for which they are remunerated according to their efficiency, the maximum rate of pay being 10 cents an hour. No pay is given when the work is designed solely for the instruction of the students. This required work is, for the most part, connected with the various field experiments under way on the farm, and is planned with a view to familiarize the student as far as possible with these experiments and our methods of working. Aside from this required work, students are allowed to work on the farm at all times when help is needed. The maximum remuneration during term time being 10 cents an hour, and during vacation, 12½ cents, and so fully do they avail themselves of this privilege that all the work on the farm is done by students. The

whole farm is under experiment, and those obtaining work there have opportunity to learn the nature and results of these experiments. They also aid in caring for the various breeds of cattle, sheep and hogs kept on the farm. Students of marked ability in agriculture are often employed as foremen, for which they are paid 15 cents an hour.

*Means of Illustration.*—Two hundred and eighty acres of land used for farm purposes, with hundreds of plats under experiment in grain, grasses, and forage crops; and illustrating various methods of culture and rotation.

A barn 50 x 75 feet, expressly arranged for experimental uses; and connected with it a general-purpose barn, 48 x 96 feet, for grain, hay, horses, and cattle. Both buildings are of stone, and are provided with steam power, and equipped with improved machinery for shelling, grinding, thrashing, cutting for the silo, and steaming.

Two piggeries—one of 10 pens, for experimental uses, and one of 6 pens, with separate yards, for general purposes.

An implement house, 22 x 50 feet, of two stories, and corncribs.

Shorthorn, Aberdeen-Angus, Hereford, Holstein-Friesian and Jersey cattle; Berkshire and Poland-China swine; and Shropshire sheep.

Farm implements of improved patterns.

Collections of grains, grasses, and forage plants.

Buildings, stock and equipments are valued at \$26,000.

#### Horticulture.

*Second Year, Fall Term.*—It is the aim to teach this art from a botanical basis. The student applies his knowledge of the prime facts in botanical physiology to the various operations of the nursery, orchard, and farm. Instruction is given by a series of lectures upon the following topics, among others: The scope of horticulture. General principles of propagation—by buds, by seeds. Production of improved varieties—by careful selection of seeds, by interfertilization of known kinds. Perpetuation of valuable sorts of fruits by bud propagation—budding, grafting, layering, etc. The important points in nursery manipulation. The orchard: Conditions of site, soil, exposure, elevation; special treatment of different kinds of fruit trees; pruning; gathering and storing fruits. Small-fruit culture: List of varieties suitable for Kansas planting. Vegetable garden: Selection and preservation of seeds; planting and transplanting; the management and use of hotbed and cold frame. Forest plantations. Windbreaks. Hedges. Trees and shrubs for ornamental planting. Two weeks of the term are devoted to class-room practice in the making of cuttings and apple grafts.

*Floriculture.*—In the winter term of the fourth year the young women study floriculture, the subject including general greenhouse management; the treatment of plants in window gardening, the growing of flowering plants in the open air, the destruction of plant pests, etc.; practice in the plant houses alternating with lectures on these topics.



HORTICULTURAL HALL AND GREENHOUSE



STUDENTS AT WORK IN THE GARDENS.



*Horticultural Work.*—Young men are required to take this industrial during half of the spring term of the second year, and half of the fall term of the third year. Here students are given practical instruction in the planting and arrangement of nursery stock, digging and planting of trees, pruning and training of trees and vines, transplanting and management of small fruits, use of hot beds and cold frames, and general vegetable gardening. Special students during the winter term receive more advanced instruction in the various methods of propagation, in grafting room and greenhouses. Students who show special proficiency in horticulture are often employed as foremen. Work done in this department is paid for at the same rate and is governed by the same rules as in the farm department.

*Means of Illustration.*—Orchards containing 100 varieties of apples, 30 of peaches, 10 of pears, 20 of plums, 30 of cherries, and 5 of apricots.

Small-fruit garden, with 200 varieties of small fruits, including blackberries, raspberries, gooseberries, currants, and strawberries; and vineyard, with 160 varieties of grapes.

Forest plantation of 12 acres, containing 20 varieties, of from 1 to 25 years' growth.

Ornamental grounds, set with a variety of evergreens and deciduous trees. Sample rows, containing about 150 varieties of ornamental and useful shrubs and trees, labeled.

Vegetable garden, with hotbeds and cold frames, and experimental beds. Practice rows for students' budding, grafting, cultivating, and pruning.

A well-planned and furnished greenhouse of three rooms, stocked with a fine collection of native and exotic plants; three propagating pits, 12x70 feet, for experimental work, and three others of the same size with commodious workroom adjoining, and equipped with the best improvements for the use of the young women in the practice of floriculture.

A tool room containing 50 individual cases of horticultural tools, besides tools and implements for general use, and pumps and apparatus for spraying with fungicides and insecticides.

Museum, containing a collection of woods from American forests, seeds of many varieties of vegetables, and a herbarium of cultivated grapes.

Value of property, exclusive of orchards and grounds, \$16,000.

#### Botany.

*Elementary Botany.*—Instruction in this branch is given during the spring term of the first year. The text-book used is Bastin's Elements of Botany. This is supplemented by daily field work, which in the main runs parallel with the text-book. The aim in the field work is to teach the student how to observe, and how to draw conclusions from his observations. The following are a few of the subjects studied: Germination of corn, bean or other common seed; opening of buds; falling of leaves; various fruits and their adaptations for dissemination; pollination and adaptations for cross fertilization.

These notes and observations, together with the necessary drawings, are submitted from time to time for examination and criticism. In addition to this, each student prepares a herbarium of not less than 50 species of native plants. These are named by the aid of Gray's Manual of Botany, sixth edition, or by a key to the spring flora of Manhattan, prepared by the Professor of Botany. The students are required to carefully analyze a number of flowers, and to fill out special blanks furnished for the purpose, and also to provide themselves with a pocket lens, under the direction of the professor in charge. Those students who intend to finish the course can save the additional expense by purchasing the text-book used in the advanced botany, since this includes the smaller work.

*Advanced Botany.*—In the winter term of the fourth year, the minute structure of plants, as well as vegetable physiology, is studied more fully. This includes an examination of the vegetable cell, its parts and modifications, and of tissue as presented in its various forms. This is made the basis for more detailed work on special subjects, among which may be mentioned germination, development of tissues, protoplasm, starch, parasitic fungi—especially the molds, smuts, rusts, etc., and other cryptogamic plants. Each student has the use of a compound microscope, with the necessary tools and reagents. The text-book used is Bastin's College Botany. Each student is required to prepare a herbarium of not less than 25 species of twigs. These are named by the aid of a pamphlet prepared by the Professor of Botany. A good herbarium and a large greenhouse are drawn upon for material for study.

*Means of Illustration.*—A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the state; a twig herbarium, illustrating woody plants in their winter condition; and a seed herbarium, containing a representative collection of seeds and fruits; also 28 compound microscopes, four dissecting microscopes, tools, reagents, etc. Valued at \$5,000.

#### Zoölogy and Entomology.

*Entomology*, (spring term, second year).—This science is studied with special reference to its economic relations with agriculture and horticulture. A brief course in the principles of classification is followed by a more extended study of the life history of beneficial and injurious insects, and means for encouragement of the one and for control of the other. The instruction is presented in the form of lectures. Illustrations are furnished from the individual collections of the students, and from the entomological collections belonging to the College. Charts and drawings from nature are used to illustrate points of value in classification. The pocket lens used in botany is required in this study.

*Zoölogy*, (winter term, third year).—In this study, Orton's Zoölogy has been adopted as the text-book. The intention of the course is to familiarize

the student with the characters of some type in each class, and then, by comparative study, with the chief modifications of the type chosen. Especial attention is given to comparative anatomy and physiology. A good collection of mammals, birds, reptiles, fishes, both mounted and alcoholic, a collection of invertebrates in alcohol, and a fine collection of conchological specimens, are among the means of illustration. Dissection and work with the microscope accompany the study.

*Means of Illustration.*—A general museum, well fitted with cases containing valuable collections of mounted Kansas mammals and birds, with mounted skeletons of wild and domestic animals, and a large series of specimens in economic and general entomology. The largest collection of Kansas fishes and mollusks in the state. Kansas reptiles and batrachians, salt-water fishes and invertebrates, in alcohol. Valued at \$4,000.

#### Anatomy and Physiology.

*Anatomy and Physiology*, (ten weeks, fall term, third year).—Human anatomy is made the basis of a thorough study in physiology and hygiene. This includes such subjects as digestion and food; circulation of the blood; respiration and ventilation; secretion and excretion; the nervous system; and the special senses. The course embraces, to some extent, comparative anatomy and physiology, affording preparation for the study of stock breeding, zoölogy, and veterinary science. Martin's Human Body is used as a textbook. Skeletons and an Azoux manikin, with charts and drawings, furnish the means of demonstration. Valued at \$1,200.

*Special Hygiene*, (fall term, fourth year).—To the young women a course of daily lectures is given by the lady principal, upon the laws of life and health. The course extends over a period of 14 weeks, and covers questions pertaining to personal health and the health of the household, such as food, air, exercise, clothing, temperature of rooms, and care of sick room.

#### Veterinary Science.

The 12-weeks course of lectures to the young men, in the winter term of the fourth year, is adapted to wants of farmers and stockmen, and includes such topics as the following: Hygiene and nursing of sick and wounded stock; diseases of bone and their treatment; diseases of the circulation, respiratory and digestive systems, their causes, treatment, and prevention; surgical operations; difficult parturition; shoeing and lameness; veterinary dentistry; horse judging and examination for soundness; some contagious and infectious diseases—their nature and prevention; the principal medicines used in treating sick animals, and how to give them. Whenever practicable, operations are performed before the class, and students are requested to assist.

*Means of Illustration.*—A laboratory fitted with apparatus, instruments, and reagents, for the study and treatment of disease. An Azoux model of a horse, which is dissectible, showing nearly 1,000 anatomical structures, skele-

tons, charts, and a large collection of anatomical specimens, showing healthy and diseased structures. Valued at \$2,000.

#### Chemistry.

The study of chemistry occupies 44 weeks. Fourteen weeks are first given to *Inorganic Chemistry*. In this the elementary principles of the science are studied, with special reference to familiarizing the student with the essential phenomena of chemical action. Combination by weight and by volume; formation of bases, acids, and salts, and the relations existing between them; systematic nomenclature and notation; the natural classification of the elements, based upon their properties—these, with careful study of the most important properties of the commoner elements, furnish the basis for the work. The facts studied are illustrated whenever practicable by experiments on the lecture table. In addition to this, each student gives two hours weekly to personal repetition of such experiments as can be performed with simple apparatus. Preparation of the elementary gases and a number of compounds, with experiments illustrating their properties, neutralization of bases and acids, and experiments illustrating the formation and stability of salts, are examples of the kind of work done by the students. Remsen's *Introduction to the Study of Chemistry* is used as a text book.

The course in *Organic Chemistry* extends over six weeks. This is taught by lectures, in which the object is less a presentation of systematic organic chemistry than a study of the occurrence, manufacture and uses of the more important organic compounds met with in everyday life. In so far as the time and subjects will permit, however, the chemical relations existing between the various classes of compounds, and their relations to inorganic compounds, are set forth as simply and distinctly as possible. The subject is taught by lectures accompanying Willard's *Organic Compounds of Everyday Life* as a text book. The lectures are illustrated by experiments, but the students do no laboratory work in this connection.

The course which for convenience is designated *Analytical Chemistry* is not designed so much to perfect the student in analysis as to familiarize him with the properties, the resemblances and differences of the compounds of the various bases and acids. It is a course in experimental chemistry in which the regular methods of identification and separation of substances are used as a basis for the work. Each student has his own work table, with water, gas, reagents, etc., and works eight hours per week for 10 weeks. He is first given single salts of known composition, then simple known mixtures, and finally unknown substances, which may be soluble or insoluble, simple or complex.

In addition to the laboratory work, the student is required to study carefully the nature of the chemical reactions which take place. Besides the small handbook used as a guide in the laboratory, students are expected to consult the larger works of reference. Two hours weekly are spent in the lecture room, in which the teacher conducts a quiz upon the subject and ex-



CHEMICAL LABORATORY.



CHEMICAL LABORATORY, ANALYTICAL ROOM.

plains any obscure points. Throughout the term, the student is required to express by equations the reactions observed in the laboratory. The aim of the course is to unify and amplify the student's knowledge of general chemistry.

*Chemistry of Foods and Agricultural Chemistry.*—During four weeks of the fall term of the third year, attention is given to the chemistry of milk, butter, cheese, common grains, vegetables, and fodder plants. During the spring term, the relations of chemistry to soils and growing crops are studied. Some of the subjects taken up are the breaking down of minerals and rocks into soils, erosion, transportation, and deposition; composition and classification of soils; the relations of plants to the constituents of the air, oxygen, nitrogen, water, carbon dioxide, ammonia; manures—their composition and use; green manuring; plowing; draining.

*Means of Illustration.*—Seven rooms, fitted with tables and apparatus for a class of 80 students in qualitative analysis, eight in quantitative analysis, including necessary facilities for assaying, and general illustrative apparatus. Value, exclusive of building, \$5,000.

#### Mineralogy.

The common minerals are studied during six weeks of the winter term of the second year. One hour per day is given to recitations and to class-room study, and the same time to determination of minerals by their physical and blowpipe characters.

*Means of Illustration.*—A well-selected mineralogical collection representing the various forms, colors and structures of all but the rarest species. This is supplemented by a similarly good collection of rocks. Valued at \$3,500.

#### Geology.

This includes a study of the igneous, atmospheric, aqueous and organic agents that have brought the earth to its present condition; the structure and arrangement of rocks; the order of succession in the strata of the earth's crust and in the life of the globe. Prominence is given to facts having an economic bearing, valuable mineral deposits in Kansas receiving special attention.

*Means of Illustration.*—Collections of specimens representing the principal geological formations; Kansas fossils and rocks, typical of the geological ages found in the state. Valued at \$1,500.

#### Physics.

*Elementary Physics*, (spring term, first year).—This term's work is intended to give the students a general view of the subject, with such laws and principles as will be useful to them in scientific studies. Apparatus will be used and scientific investigation encouraged. A text-book in elementary physics will be used.

*Advanced Physics*, (fall term and half of winter term, fourth year).—This

time is given to the experimental and text-book study of sound, heat, light, electricity, and magnetism. *Meteorology* will be treated in connection with the several subjects in physics, including a careful study of instruments and methods employed in taking meteorological observations. Text-book: Barker's Physics, advanced course.

*Means of Illustration.*—Complete physical apparatus, for general instruction in physics, and meteorological instruments, including a self recording anemometer. Among the apparatus for special work may be mentioned, Coulomb's torsion balance, Kohlrausch differential galvanometer with reading telescope, Deprez-Carpentier ammeter, Ayrton and Perry's voltmeter, Thompson's potential and current galvanometers, Carhart-Clark standard cell, standard legal ohm, Wheatstone's meter bridge, Edelmann dynamo. The value of the whole is \$4,000. The distribution of power by electricity is illustrated at the College by a 40-horse-power generator and four motors, of 5, 8, 10 and 12 horse power.

#### Mechanics and Engineering.

*Elementary Mechanics*, (winter term, third year).—The laws of motion and force are treated and applied to falling bodies and other commonly observed phenomena. The subjects of central forces, friction, work, energy, complete the study under the head of dynamics. Under statics, the following subjects suggest the outline: Representation and composition and resolution of forces; analytical relations between forces in general; moments; conditions of equilibrium; center of gravity and stability. About two weeks are given to the study of the elementary machines, as the lever, screw, wedge, etc. Dana's Text-book of Elementary Mechanics is used.

*Engineering*, (spring term, fourth year).—No text-book adaptable to our general course is to be had, and the subject is presented by lectures. The object of the course is to present such subjects in elementary, mechanical and civil engineering as should be understood by every young man educated in the arts and the applications of science. The various motors used for transforming energy are discussed; the various forming operations which give useful forms to all materials are presented. A study of the materials of construction is introductory to an analysis of various structures, their forms, strength, and desirability. Applications of the principles of mechanics are frequently made. Draughting is an essential feature of the work. Haswell's Engineer's Handbook is used by the class in connection with the lectures.

*Woodwork and Ironwork.*—Woodwork is required of all young men during one term of the first year. In the first term's work a definite, graded series of tasks is given in joining, work to dimensions, and simple problems in construction, with the proper use and care of common bench tools, through which each student is advanced according to ability. Practice is given later in general woodwork, carpentry, cabinetmaking, turning, and pattern making; and the advanced students may have work suited to their chosen line, with special problems of construction, and special training in the use and care of





IRON AND WOOD WORKSHOPS.



MACHINE SHOP.

fine tools. All work during industrial hours is laid out by the Superintendent, and belongs to the shop, except that fourth-year students are allowed to work from drawings of their own upon articles for their own use and profit. All students, when permitted, have the use of the shop outside of the practice hours for work of their own, under direction of the Superintendent.

A general course in ironwork includes graded work in blacksmithing, the management of the forge and hammer, drawing out, welding, forming, etc.; graded work in founding, covering, bench and floor moulding in iron and brass; also graded work in machine-shop practice, including bench and machine tool work, filing, chipping, laying out work, boring, turning and planing the metals.

*Means of Illustration.*—Carpenter shop, with 220 separate kits of tools, and benches for 45 students in each class; lathes, planer, circular saws, friezer, mortising machine, grinder, and tool room containing all kinds of woodworking tools for general use. Shops for ironwork contain 16 blacksmith forges; brass foundry, with 12 benches and 50-pound furnace; iron foundry, with two-ton cupola and good assortment of flasks; machine shop, equipped for 30 students, with hand tools, six screw-cutting lathes, one speed lathe, planer, shaper, drills, grinder, bolt cutter, and tool room of fine tools. The heating and power plant attached form part of the illustrative apparatus, containing five boilers, pumps, one 50-horse-power Ball & Wood engine, one 10-horse-power Atlas engine, 40-horse-power Belknap generator, and other illustrative apparatus. Wood shop run by a 12-horse-power motor; iron shop, by an 8-horse-power. Value of equipment, \$18,000.

#### Mathematics.

*Algebra.*—The first year is given to the study of algebra. In the first term, arithmetical processes are briefly reviewed and generalized by the use of negative numbers. The student is made familiar with algebraic notation, the primary processes, factoring, fractions, and the simple equation. In the second term, the equation in its various forms and applications, and the theory of exponents, are made subjects for study. The third term is given to ratio, proportion, series, logarithms, and such other topics as are essential to success in every course in mathematics. Text-book, Wentworth's Higher Algebra.

*Geometry.*—In geometrical drawing of the first year, the student has already become familiar with geometrical forms, and the construction of figures representing them. Plane geometry is studied during the fall term of the second year. Half the winter term is then given to solid and spherical geometry. Throughout the course, original demonstrations, and the solution of practical problems involving the theorems demonstrated, are required of the class. Text-book, Wentworth's New Plane and Solid Geometry.

*Trigonometry and Surveying*, (fall term, third year).—All the essential principles of plane trigonometry are carefully developed and thoroughly mastered. A short treatment of spherical trigonometry follows. Surveying in-

cludes theory, adjustment and use of instruments, platting, determination of areas, dividing land, U. S. government surveys, triangulation, leveling, topographical surveying, and railroad surveying. Field practice with compass, transit, plane table, and Y level is required. A topographical map, the data for which are gathered during the fall term, is drawn by each student during the winter term. Text-book, Wentworth's Trigonometry and Surveying.

*Means of Illustration.*—Transits, plane table, compasses, levels, chains, models, etc. Valued at \$1,400.

#### Bookkeeping and Commercial Law.

*First Year* (six weeks of winter term).—Beginning with a simple cash account, bookkeeping is developed through all the essential principles. Considerable time is given to those forms best adapted to farm and business life. Each student provides a full set of blanks, and keeps a regular set of books, in which accuracy of calculation and posting and neatness of execution are just as essential as correct understanding of the principles. Text-book, Pierce College Manual. In connection with the work in bookkeeping, a practical course of 12 lectures in commercial law is given, including contracts, farm rights, negotiable paper, sales, real estate, partnership, bailment, common carriers, and business forms.

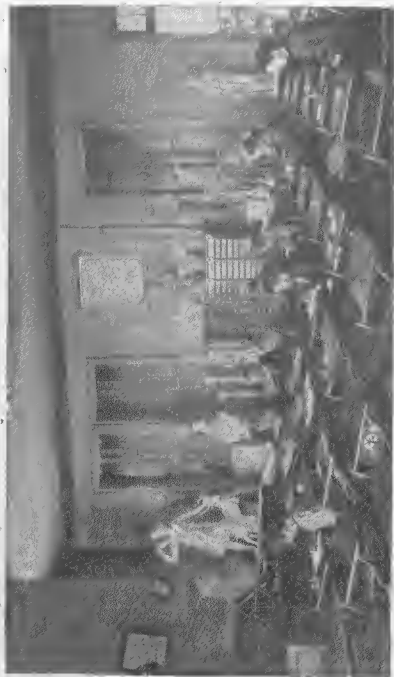
#### Drawing and Descriptive Geometry.

*Free-hand Drawing and Sketching.*—The course in free-hand drawing comprises 42 lessons in surface designing and 24 lessons in sketching from the object. The surface designing is taught in the fall term of the first year. The student begins with forms involving the straight line and the arc. He is led to note the effects of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. Later, the conventional ornament is taken up, and more subtle curvatures and complex forms are introduced. Toward the close of the term, natural forms and historic ornament in the flat are studied. The work in sketching is connected with the study of linear perspective in the spring term of the third year. The models used are geometrical solids and objects of utility and beauty, whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow, and the reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish. Walters's drawing books are used as text-books.

*Graphics.*—The course in graphics comprises six weeks of geometrical drawing; six weeks of orthographic and axonometric projection, including plane intersections; 10 weeks of descriptive geometry, including the study of plane and space curves and the principles of shades and shadows; and 16 lessons in linear perspective. The geometrical drawing is taught in the winter of the first year, and consists of the construction of perpendiculars, par-



PAINTING DEPARTMENT.



DEPARTMENT OF INDUSTRIAL ART.

allels, angles, and polygons, the circle and its secant lines, the ovoid, the oval, and the spiral, various geometrical designs and elementary architectural forms, the use of drawing board and T square, and the conventional representation of building materials. Projection drawing and descriptive geometry are taught in the second year, after the student has completed algebra and geometry; linear perspective is taught in the spring term of the third year, in connection and alternating with work in sketching from object. The College furnishes drawing board, T square, triangles and water colors for the graphic work done at the College, but all tools, including drawing board, T square, triangles, compasses, and protractor, for home use, must be furnished by the student.

*Technical Drawing.*—During the winter of the third year, each student is required to draw, ink and letter a map delineating the surveys made by the trigonometry class. In the fall term of the fourth year, two afternoons per week are given to dimension sketching, draughting, designing, and rendering in ink and water color, with the object of acquainting the student with the practical methods followed in the workshop, the draughting room, and the studio. Accuracy of measurement and neatness of execution is required in all work. Every student is instructed in the manipulation of blue and black printing processes.

Some of the graphic work of the different classes and special students is retained by the department for exhibition during commencement.

*Means of Illustration.*—Models, plaster casts, patterns, charts, easels, and implements. One of the class rooms is provided with top light, and furnished with 24 new Dietzgen patent drawing tables. An adjacent room is fitted up with running water, coating table, ruby light, etc., for blue and black printing. Valued at \$2,000.

#### English Language and Literature.

*Analysis*, (fall term of first year).—This includes the origin and growth of the language, the history of its grammatical forms, the analysis of sentence making, and the discussion of idioms and difficult constructions, together with such contraction, transposition and transformation of sentences as will aid in securing variety of expression. No text-book.

*Structure*, (winter term of first year).—One term's work is given to a careful study of words and their elements—roots, prefixes, and suffixes. The most fruitful primitives from Saxon, Latin and Greek are learned, and also the laws governing the formation of derivatives. Attention is given to the history and changes of words, and daily exercises teach careful discrimination in their use. Text-book, Swinton's Word Analysis.

*Composition*, (spring term of first year).—One term is given to the study and practice of composition, including the elements of rhetoric. Text-book, Welsh's Composition.

*Rhetoric*, (spring term of third year).—This is a study of higher rhetoric, including discussions of the fundamental processes of composition and the

essential elements of the different forms of discourse. Selections from good authors are studied for the application of principles and the outlines of criticism. Text-books, Genung's Practical Rhetoric, and Handbook of Rhetorical Analysis.

*Literature*, (fall term of fourth year).—This includes the history and development of English literature, with illustrations from the best authors. Students are led to appreciate the power of our mother tongue, and at the same time to gain some acquaintance with the best thought of the world. Text-book, Kellogg's Literature.

In the spring term of the fourth year, an additional course is provided for the young women of the class. This consists of a study of nineteenth-century authors, with the reading and discussion of standard works. Hodgkin's Leaflets are used as a guide.

*Rhetoricals*.—This course is designed to make clear writers and forcible speakers; professional elocution is not contemplated. Given sufficient theory, continuous practice is deemed indispensable. The student is, therefore, required to take rhetoricals weekly throughout the course.

First Year.—Declamation; letter and essay writing, paying especial attention to chirography, punctuation, capitalization, paragraphing, etc.; with criticism by the class and the instructor.

Second Year.—Written practice on the work of the first year; essays; letters; paraphrases; resolutions; speeches; preparation of briefs for debate; delivery of the same; declamation; gesticulation.

Third Year.—Outlining; theme writing; practice on fundamental processes, as given by Genung; essays; book reviews; character studies; critiques. Each member of the third-year class delivers publicly one declamation and an original oration, being drilled on the delivery of the same, in private rehearsal, by the instructor. Text-books, Newcomer's Composition, Genung's Rhetoric.

Fourth Year.—Topics are assigned that give practice in all forms of writing and speaking. From time to time the class is organized as a farmers' institute, a teachers meeting, a political or commercial convention, and appropriate duties apportioned. In addition to the class work, two public orations and a graduating thesis are required.

#### History and Political Science.

*General History*, (fall term, third year).—The objects of the course are to fix the chief events in the memory, train the reason by insisting upon independent conclusions based on evidence, and cultivate the taste for historical reading. Considerable attention is given to the political life of the people. Lectures are delivered at intervals. Text-book, Sheldon's Studies in General History.

*Civil Government and Political History*, (winter term, third year).—Training for citizenship is kept constantly in view. Investigation and dis-



cussion of all disputed points are encouraged. Text-books, Hinsdale's American Government, Johnston's American Politics.

*History of Industry and Science*, (six weeks of the winter term, fourth year).—The development of the chief industries and sciences, and the economic problems resulting, are presented in a course of lectures. A portion of every hour is devoted to an examination and discussion by the class of the facts, extracts and pictures used to illustrate the subject.

*Political Economy*.—General course. Thirteen lectures are delivered to the whole body of students, on certain Friday afternoons of the fall and winter terms. These lectures treat the subject consecutively, commencing with the primary concepts of the science. The principles maintained by the advocates of land nationalization, public control of public utilities, and the reform of the financial, or monetary system, are fairly stated and candidly examined, with a view of leading the student to grasp the principles involved in the science of production and distribution without bias or prejudice.

Advanced course, (spring term, fourth year). Pains are taken to compare conflicting views and point out sources of information on all sides of vexed questions. Each student is required to present at some time during the term an original paper on some topic assigned by the instructor. Text-book, Walker's Briefer Course.

#### Philosophy and Logic.

*Psychology*, (winter term, fourth year).—A short course in psychology gives the general principles of intellectual and moral philosophy. Perception, understanding, memory, imagination, thought, feeling and volition are topics of explanation and analysis. Theories of right and wrong and correct principles of action are made the means of a clear understanding of the nature of government in various forms, with special attention to individual rights and duties. Topics are assigned for individual work, to be presented in thesis form at the close of the term. Text-book, Dewey's Psychology.

*Logic*, (spring term, fourth year).—The art of reasoning correctly is aided by a study of systematic logic, both deductive and inductive. Special prominence is given to methods for exact observation and experiment and correct principles of classification. The previous researches and experience of the students are made to illustrate these principles. Text-book, Jevons-Hill, Elements of Logic.

#### Household Economy and Sewing.

*Household Economy*.—A series of lectures to young women of the second year continues through a term of 12 weeks. These cover the subjects of marketing, the chemistry of cooking, order, neatness and beauty in housekeeping, and comfort of a family.

*Cooking*.—During the winter term, the young women who have lectures on household economy are required to cook one hour each day. They are

taught various methods of making the substantial articles of food, as well as allowed to spend some time on the dainty dishes. During the term, they have practice in waiting on the table and in serving guests, thus putting the lectures into immediate practice.

During the fall term, any students who have passed the study of household economy may take cooking as an industrial, in which canning fruits, making preserves, jellies, pickles, mince-meat, desserts, cake and fancy breads form the principal part of the work.

The class spends one hour each day in the kitchen laboratory, and cooking is done by each student.

*Dairying.*—During the spring term, daily instruction and practice in domestic dairying are given the young women of the second year by the instructor in household economy. Here the regular daily work is supplemented by a short course of lectures, intended to explain the best practice in the arts of butter and cheese making, and to give the reasons therefor. The following topics cover, in the main, the instruction given the class: Influences affecting the quality and quantity of milk; butter making; creameries; "deep" and "shallow" setting systems; packing and preserving butter; the household and factory systems of cheese making.

*Sewing.*—One term of sewing is required before the completion of the first year of study. During this term the work is carefully laid out by the Superintendent in a series of lessons, graded to the capabilities of each student. To more advanced students all ordinary forms of sewing with needle or machine are taught, and any student may furnish material, and work for her own advantage under direction of the Superintendent. Cutting and fitting by a straight-line system are taught, and the systems are furnished at wholesale rates. Fancy needlework and knitting may be taken at certain stages of the course.

*Means of Illustration.*—Kitchen laboratory, with ranges, cooking utensils, dining-room furnishings, dairy furniture. Valued at \$900.

Sewing rooms, with eight machines, models, patterns, and cases. Worth \$700.

#### Music.

*Vocal Music.*—Instruction is furnished free of charge, under the direction of the Faculty. Classes meet on Wednesdays for advanced pupils, and for beginners on Tuesdays and Thursdays, at 1:30 P. M. This study is taken up at the choice of the student, but regular attendance is required as at the other classes. The advanced class shares in the music of public exercises during commencement week. Text-books, Scansion and Song, Brown's Prismatic Charts, Hatton, Concone, Marchesi, with selections from the opera and oratorio.

*Instrumental Music.*—Instruction upon the piano, organ, mandolin, guitar, and the more important orchestral and band instruments, is given free to students in the regular courses, under the following restrictions:

It may be taken as an industrial by ladies only, after the required indus-

KITCHEN LABORATORY





SEWING DEPARTMENT.

trials of the first year, and after passing an examination equivalent to one term in vocal music, in which case one hour's daily practice at the College is required.

It may be assigned as an extra at any time, when a student does well in the general course of study.

Class organization shall be wholly under control of the professor in charge. Students in the music department shall be subject to the call of the professor for music connected with College exercises.

Students who are sufficiently advanced to join the College orchestra, which has its rehearsals on Wednesday, at 2:30 P.M., or the College cadet band, which practices in connection with military drill, may become members by assignment.

The College pianos and organs are used for daily practice; the other instruments must be provided by the pupils using them. A full course, extending over four years, includes harmony and composition; but students may take lessons for a single term if they choose. Text-books, standard instructors, with suitable studies and selections.

*Means of Illustration.*—Music rooms, with five pianos, four organs, and other instruments, valued at \$1,800, and nine charts, valued at \$2,800.

#### Printing.

Two courses are pursued in this art. In one the student is taught the use of the implements or tools used in typography; composition and imposition; correcting proof; technical terms; presses and their workings; and the general duties of a first-class workman. The other course of lessons embraces instruction in spelling, capitalization, syllabication, punctuation, proof reading, and such other work as will make the student accurate and expert. Wilson's Punctuation is the text-book; but much of the instruction is oral—such as grows out of the everyday experience of the office.

Admirable drill is furnished by the *Industrialist* to all, but especially to those who take the full course. The printing which the departments of the College require gives to the advanced student a fair knowledge of the principles and practice of job work.

*Means of Illustration.*—Printing office, with 30 pairs of cases; large fonts of 6-point, 8-point, 10-point and 11-point Roman type; a good assortment of job type and brass rule; a Babcock cylinder press, with electric motor, a New Liberty quarto-medium job press, a Gordon eighth medium job press; a mitring machine; a rule-curving machine; and a paper cutter. Value of equipment, \$4,300.

#### Military Training.

*Theoretical.*—A course of lectures is given twice a week during half of the winter term and all of the spring term of second year. These are designed to show how an army is organized, equipped, and supplied; to explain some of the minor operations of war; to show the organization of the militia under

the militia law of this state. Instruction is afforded to such as desire it in other military subjects.

*Practical.*—Drills are required from four to five times a week in fall and spring terms. In the winter term, drills are arranged to occupy time during the class hours not otherwise provided for. Special attention is given to "setting up," or physical development.

The practical course in infantry embraces small-arm target practice, and, as far as possible, all the movements prescribed by the "Drill Regulations of the United States Army" that are applicable to a battalion. Instruction in artillery includes, as far as practicable, such portions of the United States drill regulations as pertain to the formation of detachments, manual of the piece, mechanical maneuvers, and firing blank cartridges.

The College battalion is divided into companies, which are officered by students appointed each term by the professor in charge, with the approval of the President.

Arms and accouterments are furnished by the United States government, the students being required to keep such as they use in proper condition. Uniforms for use in drill are furnished by the College.

*Means of Illustration.*—Armory, containing 150 stands of arms (breech-loading cadet rifles, caliber .45), with accouterments; two three-inch rifled guns; also swords, uniforms, etc. Value, exclusive of arms, \$1,000.



EXPERIMENTAL FIELD. Perspective and Second-Crop Potatoes for Seed.



CARPENTER SHOP.



## General Information.

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### EXAMINATIONS.

Examinations for admission are held at the beginning of each term, as laid down in the calendar of the College year. Applicants, to enter at any time during the term, shall have special examinations. These examinations are chiefly written, and a standard of 70 per cent. is required to pass any study.

Examinations in the course are held as arranged by the Faculty. The results of these examinations are marked on a scale of 100, and combined with the average of the preceding daily exercise upon the same scale into a grade for report to the Secretary. But any student not present at three-fourths, at least, of the class exercises, receives, at such time as the teacher may name, a more extensive examination than the general one; and this examination alone decides the grade. Unexcused absences are taken into account in calculating grades.

Averages of grades in the register are made by giving the final term grade a value of two-thirds and previous grades a value of one-third. After each term examination during the first year of attendance, a report of advancement is made to parents; and any student, upon leaving College at the close of a term, may receive a certificate of standing.

The final grade and the term average must be at least 70 for passing any study; and any student who fails to pass in two studies of the course may either drop back a year or withdraw from College.

After completing the studies of the first year, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the Faculty. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive.

Candidates for graduation must make good all deficiencies before entering upon the work of the spring term of the fourth year.

Students are not catalogued in the third-year class unless deficiencies of previous years are provided for.

Students deficient in entrance studies must make good such deficiencies before entering upon the work of the second year.

### TERMS OF ADMISSION.

Applicants for admission at the beginning of the College year must be at least 14 years of age, and able to pass a satisfactory examination in reading,

spelling, writing, arithmetic, geography, English grammar, and United States history. Specimen questions will be furnished on application. Those applying later in the year must show sufficient advancement to enter the classes already in progress. Every effort should be made to begin with the first day of a term, in order to advance with the classes from the first.

The following diplomas and certificates will be received in lieu of entrance examinations:

1st. Diplomas received on the completion of a county course of study which has been approved by the Faculty, when properly signed by the county superintendent.

2d. Certificates of passing the grammar grade in any city school with a course of study approved by the Faculty, when properly signed by the city superintendent.

3d. Kansas teachers' certificates issued by the county board of examiners, showing that the above-named studies have been passed with a grade of at least 70 per cent.

The Faculty have approved the courses of study adopted by the following counties and cities; others may be submitted for approval at any time:

## COUNTIES.

Allen,	Doniphan,	Jewell,	Morris,	Rooks,
Anderson,	Douglas,	Jehnon,	Nemaha,	Rush,
Barber,	Elk,	Kingman,	Neosho,	Russell,
Brown,	Ellis,	Labette,	Ness,	Saline,
Bourbon,	Ford,	Leavenworth,	Osage,	Shawnee,
Butler,	Franklin,	Linn,	Osborne,	Sumner,
Chase,	Geary,	Marshall,	Ottawa,	Wabaunsee,
Cherokee,	Greenwood,	Marion,	Pottawatomie,	Washington,
Clay,	Harper,	McPherson,	Republic,	Wilson,
Cloud,	Harvey,	Miami,	Reno,	Woodson,
Cowley,	Jackson,	Mitchell,	Rice,	Wyandotte.
Dickinson,	Jefferson,	Montgomery,	Riley,	

## CITIES.

Abilene,	Clay Centre,	Girard,	Lawrence,	Paola,
Anthony,	Clifton,	Great Bend,	Leavenworth,	Parsons,
Argentine,	Coffeyville,	Hiawatha,	Lyons,	Pomona,
Arkansas City,	Columbus,	Holton,	Manhattan,	Russell,
Atchison,	Concordia,	Horton,	Mankato,	Salina,
Augusta,	Council Grove,	Humboldt,	McPherson,	Seneca,
Beloit,	El Dorado,	Hutchinson,	Minneapolis,	Solomon City,
Burlingame,	Emporia,	Independence,	Newton,	Topeka,
Burlington,	Eureka,	Junction City,	Olathe,	Washington,
Caldwell,	Fort Scott,	Kanopolis,	Osage City,	Wellington,
Chanute,	Fredonia,	Kansas City,	Osborne,	Winfield,
Cherry Vale,	Garden City,	Kingman,	Oswego,	Wichita.
Chetopa,	Gaylord,	Larned,	Ottawa,	

Applicants over 18 years of age, who, for lack of advantages, are unable to pass the full examination, may be received on special conditions.

Applicants for advanced standing in the course must pass examination in all the previous studies of the class to be entered; but, if they have pursued such studies in other institutions of similar rank, they may receive credit for their standing in those institutions, upon presenting a certificate from the

proper officer, showing that their course has been equivalent to that given here.

#### GENERAL DUTIES AND PRIVILEGES.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week day except Saturdays, and no student may be absent without excuse. Unexcused absences are taken into account in calculating grades. Students enrolled in any term cannot honorably leave the College before the close of the term, unless excused beforehand by the Faculty. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy 15 minutes before the meeting of classes each morning, and unnecessary absence from them is noted. On Sunday no services are held in the chapel; but students are urgently advised to attend the different churches of the city.

Every Friday, at 1:30 P. M., the whole body of students gathers for a public lecture or for rhetorical exercises of the third- and fourth-year classes.

Systematic training in gymnastic and calisthenic exercises is provided for both young men and young women, under teachers appointed by the College.

There are four prosperous literary societies, which meet weekly, in rooms set apart for their use. The *Alpha Beta*, open to both sexes, and the *Ionian*, for ladies, meet Friday afternoon. The *Webster* and the *Hamilton* admit to membership gentlemen only, and meet on Saturday evening.

The Scientific Club, composed of members of the Faculty and students, meets in the chemical laboratory on the second and fourth Friday evenings of each month.

Branches of the College Y. M. C. A. and Y. W. C. A. hold weekly meetings at the College, on Sunday afternoon.

Once in each term the College Hall is opened for a social gathering of Faculty and students, in which music, literary exercises and friendly greeting find place.

Public lectures by prominent men of the state are provided from time to time, as opportunity offers. All are free.

#### LABOR AND EARNINGS.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the departments, and offers opportunities for increasing skill and efficiency.

In regular weekly statements, the students are required to observe business forms and principles, showing from their daily account when and where the work was performed.

The shops and offices are opened afternoons and Saturdays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is principally a part of their education, and is not paid for unless the student is employed upon work for the profit of the College. Students are so employed upon the farm, in the gardens or the shops, and about the buildings. The labor is paid for at rates varying with services rendered, from 8 to 10 cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay roll for the past year ranges from \$250 to \$400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways a few students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide by earnings outside of term time, or from other sources, for the larger part of their expenses. The long summer vacation of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his chances well.

#### EXPENSES.

Tuition is free, and no fee for incidental or contingent expenses is charged.

The cost of text-books at the book stores is, for the first year, about \$2.75 a term; for the second year, \$3 a term; for the third year, \$5 a term; and for the fourth year, \$4 a term. Second-hand books may be obtained at lower prices.

The expenses for apparatus and tools to each student during the course are as follows: Drawing, \$4.05; microscope for botany and entomology, \$1.50; case, pins, etc., for entomology, \$2.25; herbarium, \$1.50. The total expense for these articles during the four years is less than \$10.

Board and washing are not furnished by the College. Board, with furnished rooms, can be procured in private families at from \$2.50 to \$3.50 per week, or table board in student clubs from \$1.50 to \$2.25 per week. Some students board themselves at even less cost; and rooms for the purpose can be obtained at a rent of from \$1 to \$3.50 a month. Washing costs from 50 cents to \$1 a dozen pieces.

Ordinary expenditures, aside from clothing and traveling expenses, range

from \$100 to \$200 a year. No institution in the state furnishes an education at less cost to the student.

#### **BUSINESS DIRECTIONS.**

General information concerning the College and its work, studies, examinations, grades, boarding places, etc., may be obtained from the President or the Secretary.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the college should be presented monthly, and, when audited, are paid at the office of the Treasurer, in Manhattan.

All payments of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The *Industrialist* may be addressed through Pres. Geo. T. Fairchild, managing editor. Subscriptions are received by Supt. J. S. C. Thompson.

Donations for the library should be sent to the Librarian; donations for the museum, to the chairman of the Committee on Museums.

Applications for farmers' institutes should be addressed, as early in the season as possible, to the President.

The Experiment Station should be addressed through the Secretary of the Council.

## Graduates.

[This list is made from the best data obtainable. A favor will be conferred by notifying the College Secretary of any errors or changes.]

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### 1867.

HENRY L. DENISON, A. M., Denver, Colo. United States court reporter.  
BELLE M. HAINES *Pond*, A. M., Topeka, Kas. Housewife.  
EMMA L. HAINES *Bowen*, A. M., Manhattan, Kas. Housewife.  
JOHN J. POINTS, A. M., Omaha, Neb. Lawyer.  
MARTHA A. WHITE *Abbott*, A. M., Chicago, Ill. Housewife.

### 1871.

EMILY M. CAMPBELL *Robinson*, A. B. Died in 1877.  
ELLA F. DENISON *Whedon*, A. B., Lincoln, Neb. Housewife.  
LUELLA M. HOUSTON, A. B., Concordia, Kas. Milliner and dressmaker.  
CHARLES O. WEEDON, B. Sc., Lincoln, Neb. Lawyer.  
KATE E. WHITE *Turley*, A. B., Chicago, Ill. Housewife.

### 1872.

THEOPHANIA M. HAINES *Huntington*, A. B., ———. Died in 1880.  
ALBERT TODD, A. M., Fort Hamilton, N. Y. Lieutenant First U. S. artillery.  
S. WENDELL WILLISTON, A. M., M. D., Lawrence, Kas. Professor of paleontology and director of the geological survey, State University.

### 1873.

ELIZA Z. DAVIS *Stringfield*, A. B., Pomona, Cal. Housewife.  
SAM KIMBLE, A. B., Manhattan, Kas. County attorney.

### 1874.

HARRY A. BROUS, A. M., M. D., Philadelphia, Pa. Physician.  
EDGAR F. CLARK, A. B., New Whatcom, Wash. Lawyer.  
JOHN E. DAVIS, B. Sc., D. D. S., Oakland, Cal. Dentist.  
WILLIAM D. GILBERT, A. B., Atchison, Kas. Lawyer.  
A. JUDSON WHITE, A. B., Chicago, Ill. Minister.

### 1875.

REUBEN E. LOFINCK, B. Sc., Manhattan, Kas. Merchant.  
ALICE E. STEWART *Points*, A. M., Omaha, Neb. Housewife.

### 1876.

GEORGE A. GALE, A. B., Lake Worth, Fla. Merchant.  
ELLA M. GALE *Kedzie*, A. B., Lansing, Mich. Teacher of art.  
NELLIE SAWYER *Kedzie*, M. Sc., Manhattan, Kas. Professor of Household Economy and Hygiene in Kansas State Agricultural College.  
CARRIE M. KIMBALL, A. B., Garden Grove, Cal. Art instructor.  
MINERVA E. WHITMAN *Heiser*, A. B., Lyndon, Kas. Housewife.

1877.

ELLA S. CHILD, B.Sc., Manhattan, Kas. Teacher.  
 GEORGE H. FAIRYER, M.Sc., Manhattan, Kas. Professor of Chemistry in Kansas State Agricultural College.  
 JOHN F. GRIFFING, M.Sc., Topeka, Kas. Merchant.  
 WALTER C. HOWARD, B.Sc., Winnebago, Ill. Minister.  
 FREDERICK O. HOYT, B.Sc. Died in 1884.  
 LOUIS E. HUMPHREY, B.Sc., Chapman, Kas. Druggist.  
 JAMES F. LA TOURETTE, B.Sc., Fort Defiance, Ariz., Indian agency.  
 MARION F. LEASURE, B.Sc., La Cygne, Kas. Lawyer.  
 WILLIAM ULRICH, M.Sc., Manhattan, Kas. Contractor and builder.

1878.

ALBERT N. GODFREY, M.Sc., ———. Farmer and fruit grower.  
 CHARLES S. McCONNELL, B.Sc., ———. Printer.  
 GEO. S. PLATT, B.Sc. Died in 1878.  
 AMOS E. WILSON, B.Sc., McPherson, Kas. National-bank examiner.

1879.

ARTHUR T. BLAIN, B.Sc., Lacanada, Cal. Nurseryman.  
 ETTA CAMPBELL *Blain*, B.Sc., Lacanada, Cal. Housewife.  
 WILLIAM K. ECKMAN, B.Sc., Logansport, La. Lumber dealer.  
 CORVIN J. REED, B.Sc., St. Clere, Kas. Farmer.  
 HARRY C. RUSHMORE, B.Sc., Arkansas City, Kas. Train dispatcher.  
 WM. H. SIKES, B.Sc., Leonardville, Kas. Merchant and grain dealer.  
 LEWIS A. SALTER, B.Sc., Argonia, Kas. Merchant.  
 ELLA VINOENT *McCormick*, B.Sc., Clay Centre, Kas. Bookkeeper.  
 CLARENCE E. WOOD, B.Sc., A.B., Denver, Colo. Printer.

1880.

AUGUSTINE BEACHAM, B.Sc., Seattle, Wash. Principal of schools.  
 LIZZIE R. COX *Kregar*, B.Sc., Milford, Kas. Housewife.  
 EMMA HOYT *Turner*, B.Sc., Cloquet, Wis. Housewife.  
 EMMA KNOSTMAN *Huse*, B.Sc., Arkansas City, Kas. Housewife.  
 GRAOE PARKER *Perry*, B.Sc., Goodland, Kas. Housewife.  
 NORLE A. RICHARDSON, B.Sc., San Bernardino, Cal. Superintendent of city schools.  
 MARIA E. SIOCKELS *Davis*, B.Sc., Chicago, Ill. Housewife.

1881.

FLORA DONALDSON *Reed*, B.Sc., St. Clere, Kas. Housewife.  
 ULYSSES G. HOUSTON, B.Sc., Concordia, Kas. Inventor.  
 FLETCHER M. JEFFREY, B.Sc., Cripple Creek, Colo. Lawyer.  
 WILLIAM J. JEFFREY, B.Sc., San Diego, Cal. Agent.  
 DARWIN S. LEACH, B.Sc., ———, Africa.  
 WILLIAM J. LIGHTFOOT, B.Sc., Cripple Creek, Colo. Deputy United States mineral surveyor.  
 DALINDA MASON *Cotey*, B.Sc., Manhattan, Kas. Housewife.  
 WIRT S. MYERS, B.Sc. Tampa, Fla. Furniture manufacturer.

1882.

J. CHESTER ALLEN, B.Sc. Died in 1885.  
 IDA CRANFORD *Sloan*, B.Sc., Stillwater, Cal. Housewife.

EDWARD V. CRIPPS, B. Sc., ———.  
 WARREN KNAUS, M. Sc., McPherson, Kas. Editor and entomologist.  
 MATTIE E. MAILES *Coons*, B. Sc., Manhattan, Kas. Housewife.  
 ALLIE S. PECKHAM *Cordry*, B. Sc., Belleville, Kas. Housewife.  
 BELLE SELBY *Curtice*, B. Sc., Kansas City, Mo. Housewife.  
 BURTON L. SHORT, B. Sc., Kansas City, Kas. City clerk.  
 JOHN A. SLOAN, B. Sc., Stillwater, Cal. Farmer and nurseryman.

## 1883.

JAMES W. BERRY, B. Sc., Jewell City, Kas. Farmer, contractor, and builder.  
 MARY C. BOWER, B. Sc., Manhattan, Kas. Clerk.  
 LEWIS W. CALL, B. Sc., LL. M., Washington, D. C. Clerk in attorney general's office.  
 EMMA E. GLOSSOP, B. Sc., Manhattan, Kas. Teacher.  
 WILLIAM J. GRIFFING, B. Sc., Manhattan, Kas. Farmer and fruit grower.  
 PHOEBE E. HAINES, M. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.  
 HORTENSE L. HOUSTON *Martin*, B. Sc., Concordia, Kas. Housewife.  
 JACOB LUND, M. Sc., Manhattan, Kas. Mechanical engineer.  
 KATIE I. MEGUIRE *Sheldon*, B. Sc., Riverside, Cal. Housewife.  
 J. DANA NEEDHAM, B. Sc., Lane, Kas. Merchant.  
 MILAN T. WARD, B. Sc., M. D., Orion, Ill. Physician.  
 JULIUS T. WILLARD, M. Sc., Manhattan, Kas. Assistant Professor of Chemistry, Kansas State Agricultural College.

## 1884.

EMMETT S. ANDRESS, B. Sc., Lakin, Kas. Farmer.  
 FLORENCE J. BROUS, B. Sc., Kansas City, Kas. Teacher.  
 BARTHOLOMEW BUOHLI, M. Sc., D. V. S., Paxico, Kas. Veterinary surgeon. Teacher.  
 JOHN H. CALVIN, B. Sc., LL. B., Topeka, Kas. Lawyer.  
 WM. A. COREY, B. Sc., Salt Lake City, Utah. Teacher and editor.  
 HENRY M. COTTELL, M. Sc., Rhinecliff, N. Y. Superintendent of Ellerslie dairy farm.  
 CARRIE F. DONALDSON *Brown*, B. Sc., Portland, Ore. Housewife.  
 FLORENCE A. DONALDSON, B. Sc. Died in August, 1888.  
 FRANK W. DUNN, B. Sc., Garden City, Kas. Assistant in irrigation, Experiment Station, Kansas State Agricultural College.  
 I. DAY GARDINER, B. Sc., Bradford, Kas. Farmer.  
 EDWIN H. KERN, B. Sc., Mauckato, Kas. Civil engineer and farmer.  
 MARION M. LEWIS, B. Sc., Ogden, Utah. Minister.  
 CHARLES L. MARLATT, M. Sc., Washington, D. C. Assistant in entomological division, United States department of agriculture.  
 LINCOLN H. NEISWENDER, B. Sc., Silver Lake, Kas. Farmer.  
 GEO. C. PECK, B. Sc., Junction City, Kas. Printer.  
 HATTIE L. PECK *Berry*, B. Sc., Jewell City, Kas. Housewife.  
 JOHN W. SHARTEL, B. Sc., Guthrie, O. T. Lawyer.

## 1885.

THOMAS BASSLER, B. Sc., Geuda Springs, Kas. Teacher and nurseryman.  
 ALBERT DEITZ, B. Sc., Kansas City, Mo. Merchant.  
 GEORGE E. HOPPER, M. Sc., Arkansas City, Kas. In charge of waterworks.  
 FLORENCE F. HOUGH, B. Sc., Melrose, Iowa.  
 FRANK A. HUTTO, B. Sc., Stillwater, O. T. Lawyer.  
 ALLEN LEWIS, B. Sc., Topeka, Kas. Civil engineer.  
 NELLIE J. MURPHY, B. Sc., South Denver, Colo. Printer.



ARTHUR L. NOYES, B.Sc., St. Louis, Mo. Electrical engineer.  
 CLARENCE D. PRATT, B.Sc., Joplin, Mo. Secretary lead and paint company.  
 ROLLIN R. REES, B.Sc., Minneapolis, Kas. County attorney.  
 FREDERICK J. ROGERS, M.Sc., Ithaca, N. Y. Instructor in physics, Cornell University.  
 DOROTHY E. C. SEOREST *Hungerford*, B.Sc., Elgin, Tenn. Housewife.  
 GRACE WONSETLER, B.Sc., Verbeck, Kas. Teacher.  
 EFFIE E. WOODS *Shartel*, B.Sc., Guthrie, O. T. Housewife.

1886.

LILLIE B. BRIDGEMAN, M.Sc., Berkeley, Cal. Student and instructor, State University.  
 LOUIS P. BROUS, B.Sc., Portland, Ore. Draughtsman and topographical engineer.  
 PAUL H. FAIRCHILD, B.Sc., M.D., Passaic, N. J. Publisher of medical journals.  
 ABBOTT M. GREEN, B.Sc., Adin, Cal. Civil engineer and teacher.  
 JAMES G. HARROD, B.Sc., Fort Leavenworth, Kas. Lieutenant Fifth Cavalry, U. S. army.  
 JOHN U. HIGINBOTHAM, B.Sc., Chicago, Ill. Cashier, wholesale house.  
 MARIA C. HOPPER *Getty*, B.Sc., Downs, Kas. Housewife.  
 E. ADA LITTLE, B.Sc., Logan, Utah. Instructor in sewing and music, Utah Agricultural College.  
 FRANK L. PARKER, B.Sc., Pueblo, Colo. Telegraph operator.  
 EDWARD H. PERRY, B.Sc., Perry, O. T. Merchant.  
 H. AUGUSTUS PLATT, B.Sc., Guthrie, O. T.  
 ADA H. QUINRY *Perry*, B.Sc., Perry, O. T. Housewife.  
 IDA H. QUINRY *Gardiner*, B.Sc., Bradford, Kas. Housewife.  
 MINNIE REED, M.Sc., Argentine, Kas. Teacher.  
 DAVID G. ROBERTSON, B.Sc., Osborne, Kas. Lawyer.  
 EDWARD O. SISSON, B.Sc., Chicago, Ill. Principal South Side school.  
 JOHN W. VAN DEVENTER, B.Sc., Sterling, Colo. Editor and publisher.  
 GEORGE W. WATERS, B.Sc., Junction City, Kas. Teacher.  
 WILLIAM E. WHALEY, B.Sc., Salina, Kas. Principal high school.  
 F. HENRIETTA WILLARD *Calvin*, B.Sc., Topeka, Kas. Housewife.  
 JOHN L. WISE, B.Sc., Smithboro, Ill. Merchant.

1887.

EDGAR A. ALLEN, B.Sc., Chillicothe, O. T. Teacher in Indian school.  
 FRED H. AVERY, B.Sc., Wakefield, Kas. Farmer and horse breeder.  
 CLAUDE M. BREESE, M.Sc., Manhattan, Kas. Assistant in chemistry, Kansas State Agricultural College.  
 JOHN B. BROWN, M.Sc., Kansas City, Mo. U. S. weather bureau observer.  
 WALTER J. G. BURTIS, B.Sc., Fredonia, Kas. Farmer.  
 MARK A. CARLETON, M.Sc., Washington, D. C. Assistant in division of vegetable pathology, U. S. department of agriculture.  
 NELLIE E. COTTRELL *Stiles*, B.Sc., Helix, Cal. Housewife.  
 BERT R. ELLIOTT, B.Sc., San Diego, Cal. Superintendent fruit farm.  
 FREDERICK B. ELLIOTT, B.Sc., Manhattan, Kas. Real-estate and insurance agent.  
 CLARA M. KEYES, B.Sc., Banner, Cal. Teacher.  
 FRED. G. KIMBALL, B.Sc., Hastings, Neb. Railway postal clerk.  
 FREDERICK A. MARLATT, B.Sc., Manhattan, Kas. Assistant in entomology, Experiment Station, Kansas State Agricultural College.  
 WILLIAM J. McLAUGHLIN, B.Sc., Bern, Kas. Teacher and editor.

MARY E. MOSES, B. Sc., Manhattan, Kas. At home.  
 CHARLES A. MURPHY, B. Sc., Kingman, Kas. Superintendent of schools.  
 ORLANDO G. PALMER, B. Sc., LL. M., Washington, D. C. Lawyer.  
 LOUIS B. PARKEE, B. Sc. Died in June, 1889.  
 JAMES E. PAYNE, B. Sc., Manhattan, Kas. Postgraduate student, Kansas State Agricultural College.  
 SEWARD N. PEOK, B. Sc., Topeka, Kas. Cabinetmaker, railroad shops.  
 GEORGE N. THOMPSON, B. Sc., Belmond, Iowa. Mechanic.  
 WILLIS M. WRIGHT, B. Sc., Lake Arthur, La. Farmer.

## 1888.

GRANT ARNOLD, B. Sc., Toledo, Wash. Teacher.  
 BEETHA H. BACHHELLER, M. Sc., Lyons, Kas. Teacher.  
 CLEMENT G. CLABKE, B. Sc., New Haven, Conn. Student in Yale University.  
 ALEXANDER C. COBB, B. Sc., Wagoner, I. T. Farmer and carpenter.  
 MATTIE COBB *Clarke*, B. Sc., New Haven, Conn. Housewife.  
 MINNIE H. COWELL, B. Sc., Temperance hospital, N. W., London, Eng. Hospital nurse.  
 LYMAN H. DIXON, B. Sc., Buffalo, N. Y. Architect.  
 DAVID G. FAIBOHILD, M. Sc., Breslau, Ger. Special student in botany.  
 CARL E. FRIEND, B. Sc., Soldier, Kas. Banker.  
 JOHN R. HARRISON, B. Sc., Salina, Kas. Railway postal clerk.  
 HUMPHREY W. JONES, B. Sc., Alma, Kas. Principal of schools.  
 NATHAN E. LEWIS, B. Sc., Grand Rapids, Mich. Draughtsman.  
 ABBIE L. MARLATT, M. Sc., Logan, Utah. Professor of domestic economy, Utah Agricultural College.  
 WILLIAM C. MOORE, B. Sc., Junction City, Kas. Editor and publisher.  
 EBNEST F. NICHOLS, B. Sc., Hamilton, N. Y. Professor of physics, Colgate University.  
 HARRY E. ROBB, B. Sc., Eureka, Kas. Farmer and county surveyor.  
 ANNA SNYDER, B. Sc., Oskaloosa, Kas. At home.  
 EDWIN H. SNYDER, B. Sc., Highlands, Colo. Editor.  
 OLIVER L. UTTER, B. Sc., Baldwin, Kas. Student, Baker University.  
 AARON WALTERS, B. Sc. Died in June, 1892.  
 LOEA L. WATERS, M. Sc., Manhattan, Kas. Teacher.  
 DANIEL W. WORKING, jr., B. Sc., Fort Collins, Colo. Secretary State Board of Agriculture.

## 1889.

EMMA A. ALLEN, B. Sc. Died in June, 1891.  
 JOSEPH W. BAYLES, B. Sc., Garrison, Kas. Teacher and farmer.  
 WALTER R. BROWNING, B. Sc., Hamlin, Kas. Farmer.  
 DAVID E. BUNDY, B. Sc., Holton, Kas. Minister.  
 SAMUEL S. COBB, B. Sc., Wagoner, I. T. Druggist and postmaster.  
 JUDSON H. CRISWELL, B. Sc., Manhattan, Kas. Farmer.  
 MATTIE I. FARLEY *Carr*, B. Sc., Oro, Wash. Housewife.  
 CLARENCE E. FREEMAN, M. Sc., Chicago, Ill. Special student in electricity, Armour Institute.  
 HATTIE L. GALE *Sanders*, B. Sc., Lake Worth, Fla. Housewife.  
 JOHN S. HAZEN, B. Sc., Des Moines, Iowa. United States weather bureau observer.  
 ALBERT B. KIMBALL, B. Sc., Scandia, Kas. Teacher.  
 WILLIAM KNABE, B. Sc., Hiawatha, Kas. Bank clerk.  
 MARY C. LEE, B. Sc., Manhattan, Kas. At home.

ALONZO A. MILLS, B. Sc., Logan, Utah. Assistant in agriculture, Utah Agrionltural Experiment Station.  
 SUSAN W. NICHOLS, B. So., St. Joseph, Mo. Music teacher.  
 WALTER H. OLIN, M. Sc., Osborne, Kas. Superintendent of schools.  
 ELI M. PADDLEFORD, B. Sc., Baldwin, Kas. Student, Baker University.  
 MAUDE F. SAYERS, B. Sc., Ottawa, Kas. Bookkeeper.  
 FLORINE SECREST, B. Sc., Madison, Cal. Teaoher.  
 STANLEY SNYDER, B. So., Oskaloosa, Kas. Farmer.  
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1890.

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1891.

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1892.

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1893.

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 GEORGE K. THOMPSON, B. Sc., Irving, Kas. Engineer.  
 WILLIAM JAMES YEOMAN, B. Sc., La Crosse, Kas. Teacher.

## SUMMARY.

The number of graduates up to 1893 is 358, of whom 120 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of bachelor of arts. Since 1877, all have received the degree of bachelor of science, after a four-years course in the sciences, with good English training.

Of the 238 men, 6 are deceased, and the remainder are reported in the following occupations:

Farmers.....	34
Fruit growers and nurserymen.....	11
Dairymen.....	2
Professors and instructors in agricultural colleges.....	7
Assistants in agricultural experiment stations.....	5
Assistants in U. S. department of agriculture.....	3
Secretary state board of agriculture.....	1
Teachers and students of special sciences.....	10
Veterinary surgeons.....	3
Mechanics.....	4
Civil, electrical and mechanical engineers.....	10
Contractors and builders.....	3
Architects and draughtsmen.....	4
General business men.....	15
Merchants.....	12
Printers.....	6
Telegraph operators and railroad agents.....	4
Photographer.....	1
Superintendents of public schools.....	5
Teachers in public schools.....	41
Teachers in Indian schools.....	1
Students in other institutions.....	5
Officers in U. S. army.....	2
Observers in U. S. weather service.....	2
Physicians and students of medicine.....	6
Druggist.....	2
Dentists.....	2
Editors.....	10
Ministers.....	7
Secretary Y. M. C. A.....	1
Lawyers and students of law.....	22
Officials and official clerks.....	5
Railway postal clerks.....	3
Unknown.....	1
Total.....	253
In two occupations.....	21
	232

Of the 120 women, 4 are deceased, and the remainder are occupied as follows:

Housewives.....	43
At home.....	12
Instructors in sewing.....	2
Teachers in household economy.....	4
Teachers in public schools.....	32
Bookkeepers.....	3
Teachers and students of special sciences.....	6
Teachers of music.....	2
Teachers of art.....	2
Clerks or stenographers.....	4
Printers.....	2

Milliner and dressmaker .....	1
Assistant librarian. ....	1
Hospital nurse.....	1
Student in other institutions.....	1
Editor.....	1
Unknown.....	1
Total.....	118
In two occupations.....	2
	116

### Occupations of Students who Pursued the Course beyond the First Year, but did not Graduate.

In 1892, requests were sent to all students not then in attendance who have been catalogued since 1877 as "second-year students," but who did not complete the course, to report their present occupation, and the one they expect to follow permanently. About 600 were addressed, and 45 per cent. responded. Undoubtedly a large number failed to receive the request, because of changes in residence, of which we had not been informed.

	MEN.		WOMEN.	
	Totals.....	Per cent. of total reporting.....	Totals.....	Per cent. of total reporting.....
Farming:				
Present .....	71	89		
Future.....	64	35		
Housekeeping:				
Present .....			41	47
Future.....			33	38
Other industries:				
Present .....	23	13	5	6
Future.....	15	8	5	6
Office work and commerce:				
Present .....	45	24	4	5
Future.....	32	16	3	3
Professions:				
Present .....	14	8	3	3
Future.....	34	18	5	6
Teaching:				
Present .....	19	10	25	28
Future.....	10	5	29	33
Students elsewhere: Present.....	12	7	7	8
Students here: Future.....	4	2		
Undecided: Future.....	25	13	12	14
Married.....			33	38
No occupation: Present.....			2	2
Total reporting.....	184		87	

### Total Attendance for Sixteen Years.

Year.	Attendance.	Year.	Attendance.	Year.	Attendance.
1878-'79.....	207	1884-'85.....	401	1889-'90.....	514
1879-'80.....	276	1885-'86.....	428	1890-'91.....	593
1880-'81.....	267	1886-'87.....	481	1891-'92.....	584
1881-'82.....	312	1887-'88.....	472	1892-'93.....	587
1882-'83.....	347	1888-'89.....	445	1893-'94.....	555
1883-'84.....	395				



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## CALENDAR.

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### 1893-'94.

FALL TERM: September 14 to December 22.

WINTER TERM: January 9 to March 30.

SPRING TERM: April 2 to June 13.

June 13, Commencement.

### 1894-'95.

FALL TERM: September 13 to December 21.